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Drug Abuse And Dependence Among Adolescents In Malaysia

**Pusat Penyelidikan Dadah dan Ubat-Ubatan
(Centre for Drug Research)
U.N./W.H.O. Research and Training Centre
Universiti Sains Malaysia
Penang, MALAYSIA.**

DRUG ABUSE AND DEPENDENCE
AMONG ADOLESCENTS IN MALAYSIA

V. NAVARATNAM
K. FOONG
S.K. HOO

RESEARCH REPORT SERIES NO. 24

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Pusat Penyelidikan Dadah Dan Ubat-Ubatan
*(Centre for Drug Research)
Universiti Sains Malaysia
Minden, Pulau Pinang
Malaysia

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RINGKASAN

Pengenalan

Laporan ini menunjukkan hasil kajian daripada penganalisaan data yang telah dikumpul oleh Sistem Kawalan Penyalahgunaan Dadah Kebangsaan (SKPDK) mengenai penyalahguna dadah golongan muda, dalam lingkungan umur 21 tahun dan ke bawah, di antara tahun 1978 sehingga tahun 1987. Tujuan kajian ini adalah untuk mengkaji mengenai masalah penyalahguna dadah yang berada dalam lingkungan umur 21 tahun dan ke bawah. Kajian ini juga bertujuan untuk mengkaji pola penyalahgunaan dadah golongan ini, di antara tahun 1978 sehingga tahun 1987. Ciri-ciri sosio-demografik penyalahgunaan dadah mereka secara umum telah dikaji. Ciri-ciri sosio-demografik yang diterangkan termasuk tahun dan negeri di mana mereka diidentifikasi; kaum; jantina; taraf perkahwinan; pekerjaan; pendapatan bulanan; rekod jenayah; dan tahap pendidikan. Perbincangan mengenai corak umum penggunaan dadah adalah berdasarkan kepada jenis dadah yang disalahgunakan; tingkat umur di mana mereka mula menggunakan dadah; sebab serta jangkamasa mereka telah menggunakan dadah; punca bekalan dadah; perbelanjaan harian untuk dadah; dan sebabnya mereka menghentikan penggunaan dadah.

Metodologi Kajian

Dalam kajian ini, data yang digunakan untuk penganalisaan statistik telah dikumpul oleh SKPDK dari tahun 1978 sehingga tahun 1987. Dalam jangkamasa ini, seramai 13,185 orang penyalahguna dadah golongan muda yang berada dalam lingkungan umur 21 tahun dan ke bawah telah dikenalpasti oleh SKPDK. Selisihan Jadual (Cross Tabulation) telah dijalankan di antara ciri-ciri sosio-demografik dan corak umum penggunaan dadah golongan muda ini. Ini adalah bertujuan untuk menganalisa data-data statistik supaya dapat memberi maklumat mengenai ciri-ciri sosio-demografik yang dipilih, seperti kaum dan corak penggunaan dadah. Ujian "Chi-Squared" telah diguna untuk mengesan perbezaan yang ketara dalam perbandingan di antara ciri-ciri sosio-demografik yang dipilih dengan corak penggunaan dadah; dan juga dalam perbandingan dengan penyalahguna dadah dari golongan pelajar dan bukan pelajar. Ujian ini juga digunakan untuk membandingkan ciri-ciri sosio-demografik dengan corak penggunaan dadah secara umum di antara penyalahguna dadah dalam lingkungan umur yang berlainan iaitu mereka yang dalam lingkungan umur 21 tahun dan ke bawah, mereka yang berumur di antara 22 hingga 30 tahun dan mereka yang berumur 30 tahun ke atas.

Keputusan

Penemuan-penemuan utama hasil kajian ini adalah seperti berikut:-

- o Negeri-negeri utama di mana penyalahguna dadah golongan muda telah dikenalpasti adalah di Perak (18.17%); Pulau Pinang (17.12%); Johor (12.64%) dan Wilayah Persekutuan (11.09%).
- o Lebih daripada separuh penyalahguna dadah golongan muda yang dikenalpasti ini adalah dari kaum Melayu (51.47%), sementara kaum Cina meliputi 36.30% dan kaum India, 10.72%.
- o Sebahagian besar penyalahguna dadah golongan muda ini adalah lelaki (97.56%) dan selainnya 22.44% adalah perempuan.
- o Satu peratusan yang tinggi (96.10%) daripada penyalahguna dadah golongan muda ini adalah bujang.
- o 31.14% daripada penyalahguna dadah golongan muda yang telah dikenalpasti tidak mempunyai pekerjaan sementara 4.58% yang lain adalah pelajar. 47.59% daripada penyalahguna dadah golongan muda bukanlah pekerja mahir sementara sebilangan kecil lagi (1.21%) terlibat dalam pekerjaan separuh mahir.
- o Sebahagian besar penyalahguna dadah golongan muda ini (94.46%) berada dalam kumpulan yang berpendapatan \$600.00 dan ke bawah.
- o Berdasarkan kepada rekod jenayah mereka, 30.05% daripada mereka pernah ditangkap, 17.96% pernah dihukum dan 14.36% pernah dipenjarakan.
- o Jenis kesalahan jenayah yang paling biasa (76.81%) dilakukan oleh penyalahguna dadah golongan muda ini adalah 'kesalahan memiliki dadah'.
- o Heroin merupakan jenis dadah yang biasa (76.41%) disalahgunakan oleh penyalahguna dadah golongan muda, diikuti pula oleh tembakau (56.85%) dan ganja (32.72%).

- o Lebih tiga perempat (76.49%) daripada jumlah penyalahguna dadah golongan muda ini mula mengguna dadah apabila mereka berada dalam lingkungan umur 15 hingga 19 tahun.
- o Pengaruh rakan sebaya merupakan sebab yang utama (57.22%) di mana mereka mula mengguna dadah, diikuti pula dengan sebab mencari keseronokan (48.64%) dan perasaan ingin tahu (27.58%).
- o Lebih separuh (51.70%) daripada jumlah penyalahguna dadah golongan muda ini telah mengguna dadah selama kurang daripada satu tahun, sementara 23.87% telah mengguna dadah selama satu hingga dua tahun.
- o Lebih satu pertiga (35.43%) daripada penyalahguna dadah golongan muda ini telah membelanjakan \$1 - \$5 sehari untuk dadah, sementara 41.02% telah membelanjakan \$6 - \$10 sehari. 14.56% yang lain membelanjakan \$15 sehari.
- o Punca utama bekalan dadah ini pada masa mereka dikenalpasti adalah pengedar dadah yang juga menjadi penagih (62.47%) dan kawan (46.29%).
- o Berdasarkan kepada jangkaan populasi, masalah penyalahgunaan dadah di kalangan golongan muda adalah lebih serius di kalangan populasi India (1.202%) berbanding dengan populasi Cina (1.058%) dan Melayu (0.767%).
- o Sebahagian besar penyalahguna dadah golongan muda Melayu adalah pelajar dan mereka yang tidak mempunyai pekerjaan. Sementara itu untuk kaum Cina, sebahagian besar dari mereka terdiri dari para profesional dan pekerja mahir dan tidak mahir. Satu pola yang sama juga didapati di kalangan kaum India kecuali pekerja mahir India adalah lebih kurang berbanding dengan pekerja Cina.
- o Ada perbezaan yang ketara dalam corak taburan pendapatan bulanan golongan muda ini mengikut kaum yang berlainan. Kebanyakan kaum Melayu adalah dari kategori \$1 - \$250, kaum India dari kategori \$251 - \$350, sementara kaum Cina pula adalah dari kategori \$351 - \$600.

- o Sebahagian besar kaum Melayu telah mencapai tahap pendidikan yang lebih tinggi iaitu peringkat menengah rendah dan menengah atas bila dibandingkan dengan bahagian kaum Cina yang hanya mencapai tahap pendidikan sekolah rendah dan bahagian India pula yang tidak ada sebarang pendidikan formal.
- o Bahagian yang lebih besar di kalangan kaum Cina dan kaum India didapati pernah ditangkap.
- o Secara relatif, bahagian yang lebih besar dari kaum Cina didapati menyalahguna dadah heroin berbanding dengan penyalahguna dadah golongan muda dari kaum lain. Pola yang bertentangan didapati untuk kaum Melayu dan India di mana sebahagian besar dari mereka menyalahgunakan tembakau dan alkohol.
- o Bahagian yang lebih besar dari golongan Cina melaporkan bahawa jangkamasa penggunaan dadah mereka adalah kurang daripada 2 tahun sementara bahagian yang lebih besar dari golongan Melayu dan India melaporkan bahawa jangkamasa mereka adalah di antara 2 hingga 10 tahun.
- o Penyalahguna dadah golongan muda kaum Cina membelanjakan lebih wang untuk dadah dalam sehari berbanding dengan kaum Melayu dan India.
- o Daripada penyalahguna dadah yang terdiri dari pelajar, kebanyakan mereka adalah golongan Melayu (84.63%), 9.63% adalah Cina dan 4.05% adalah India.
- o Tembakau merupakan dadah yang paling biasa disalahgunakan (50.18%) oleh penyalahguna dadah yang terdiri dari pelajar. Ini diikuti pula oleh ganja (54.85%) dan heroin (49.38%).
- o Sebahagian besar (60.73%) daripada penyalahguna dadah golongan pelajar membelanjakan di antara \$1 - \$5 sehari untuk dadah.
- o 58.44% daripada penyalahguna dadah golongan pelajar mendapat bekalan dadah mereka dari kawan. Ini menunjukkan pentingnya pengaruh rakan sebaya yang negatif di kalangan pelajar.

- o Bahagian yang lebih besar daripada penyalahguna dadah golongan pelajar berada di peringkat sekolah menengah atas semasa mereka dikenalpasti. Sementara itu, untuk penyalahguna dadah bukan dari golongan pelajar pula, sebilangan besar dari mereka hanya telah mencapai peringkat pendidikan sekolah rendah atau menengah rendah sahaja.
- o Keputusan daripada jangkamasa penyalahgunaan dadah mencadangkan bahawa kebanyakan penyalahguna dadah golongan pelajar merupakan pengguna experimental (percubaan). Sementara itu, sebilangan besar penyalahguna dadah bukan golongan pelajar merupakan penagih dadah.
- o Sebab yang paling biasa diberikan untuk menghentikan penggunaan dadah di kalangan mereka yang bukan pelajar adalah tekanan daripada undang-undang. Sementara itu, untuk golongan pelajar pula, keluarga menjadi sebabnya mereka menghentikan penggunaan dadah.
- o Berbanding dengan penyalahguna dadah yang lebih tua, sebilangan besar penyalahguna dadah golongan muda ini mengguna dadah kerana perasaan ingin tahu. Sementara itu, sebilangan kecil pula berbuat demikian akibat dari pengaruh rakan sebaya.
- o Sebahagian besar daripada penyalahguna dadah yang lebih tua (30 tahun dan ke atas) mendapat bekalan dadah mereka dari pengedar dadah, berbanding dengan penyalahguna dadah golongan muda (dalam lingkungan umur 21 tahun dan ke bawah) yang mendapat bekalan mereka daripada kawan.
- o Didapati ada peratusan yang menurun secara perlahan di kalangan penyalahguna dadah golongan muda kaum Melayu dari tahun 1978 sehingga tahun 1980 dan peratusan yang meningkat secara perlahan dari tahun 1980 sehingga tahun 1987. Pola aliran untuk penyalahguna dadah golongan Cina muda adalah bertentangan dengan golongan Melayu sementara untuk golongan India pula, pola alirannya agak stabil untuk tahun-tahun tersebut.
- o Untuk jangkamasa 10 tahun ini, didapati adanya satu pola aliran yang semakin meningkat dalam peratusan penyalahguna dadah golongan muda yang telah mencapai peringkat pendidikan menengah dan pola aliran yang menurun bagi mereka yang mencapai peringkat sekolah rendah.

- o Didapati juga adanya penurunan penyalahgunaan dadah heroin oleh penyalahguna dadah golongan muda. Tetapi terdapat juga peningkatan penyalahgunaan ganja dalam jangkamasa 1978 - 1987.

Kesimpulan

Sebilangan besar daripada penyalahguna dadah golongan muda di Malaysia, dikenali di antara tahun 1978 - 1987 bukan merupakan pengguna kronik dan berat. Terdapat pengaruh ke atas corak penggunaan dadah dan latar belakang sosio-demografik penyalahguna dadah golongan muda mengikut kaum etnik, tahap pendidikan dan umur. Sebilangan besar daripada penyalahguna dadah golongan Melayu muda telah mencapai tahap pendidikan yang lebih tinggi. Ini menunjukkan perlunya satu kajian lanjut ke atas faktor-faktor psikososial yang menyumbang kepada fenomena ini.

Peringkat remaja akhir (umur 15 - 19 tahun) didapati merupakan jangkamasa di mana kerap didapati penyalahguna dadah golongan pelajar melibatkan diri dalam penyalahgunaan dadah. Bilangan penyalahguna dadah golongan pelajar yang lebih besar didapati menggunakan ganja sementara bilangan penyalahguna dadah bukan pelajar yang lebih besar pula didapati menggunakan heroin. Sebahagian besar daripada penyalahguna dadah bukan pelajar adalah lepasan darjah enam atau SRP.

Ini mencadangkan bahawa dalam langkah-langkah pencegahan di mana kumpulan sasaran adalah mereka yang tercicir dari sekolah mungkin merupakan jenis rancangan pencegahan dadah yang berkesan untuk golongan muda. Kebanyakan ciri-ciri sosio-demografik dan corak penggunaan dadah di antara tahun 1978 sehingga tahun 1987 mempunyai pola aliran dengan corak yang tetap. Untuk proses merancang aktiviti-aktiviti pencegahan penyalahgunaan dadah, penilaian keperluan spesifik untuk kumpulan sasaran yang berlainan patut dijalankan. Ini adalah bertujuan untuk mengesan dan mengenalpasti keperluan mereka supaya perancangan dan pelaksanaan rancangan pencegahan akan membawa kesan.

SUMMARY

Introduction

This report presents findings from an analysis of data collected by NDAMS (National Drug Abuse Monitoring System) on young drug abusers of the age of 21 years old and below over the years 1978 through 1987. The purpose of the study is to examine the problem of young drug abusers of 21 years old and below. It also aims to examine the trend of drug abuse among this group, over the years 1978 through 1987. The socio-demographic characteristics of these young abusers and their general pattern of drug use were examined. The socio-demographic characteristics described include year and state of identification; ethnicity; sex; marital status; occupation; monthly income; criminal record; and education level. The general pattern of drug use discussed was based on type of drugs ever abused; age of onset on drug use; reasons and duration of drug use; sources of drugs; daily expenditure on drugs; and reasons for discontinuance of drug use.

Research Methodology

The data used for statistical analysis in the study were collected by NDAMS over the years 1978 through 1987. A total of 13,185 young abusers at the age of 21 years old and below were identified by NDAMS over this period of time. To analyse the statistical data in order to give information on selected socio-demographic characteristic, e.g. ethnicity and drug use pattern, cross-tabulations were done between socio-demographic characteristics and general pattern of drug use of the young drug abusers. Chi-Squared Test was used to detect significant differences in the comparison of selected socio-demographic characteristics and pattern of drug use; and in the comparison of student and non-student abusers. It is also used to compare the socio-demographic characteristics and general pattern of drug use between the young abusers of 21 years old and below, abusers of 22 to 30 years old and those more than 30 years old.

Results

The main results of the study are summarised below:-

- o The major states from which the young abusers were identified are Perak (18.17%); Penang (17.12%); Johore (12.64%) and the Federal Territory (11.09%).
- o Slightly more than half (51.47%) of the identified young abusers were Malay, while the Chinese consists of 36.30% and the Indians 10.72%.
- o Majority of the young abusers were males (97.56%) with the remaining 2.44% of them being females.
- o A large percentage (96.10%) of the young abusers were single.
- o A relatively large number (31.14%) of the identified young abusers were unemployed, while 4.58% were students. Young abusers who were unskilled workers consists of 47.59%, while a small portion (1.21%) were involved in semi-skilled occupation.
- o Majority of the young abuser (94.46%) were from the \$600.00 and below income group.
- o Based on their criminal records, 30.05% of these young abusers were ever arrested, 17.96% were ever convicted and 14.36% were ever incarcerated.
- o The most common (76.81%) criminal offence committed by the young abusers was 'possession of drugs'.
- o Heroin was the most common (76.41%) drug ever abused by young abusers, while tobacco (56.85%) and cannabis (32.72%) were the next two.
- o More than three-quarter (76.49%) of the young abusers started their use of substances between 15 and 19 years of age.
- o Peer group influence was the most common reason (57.22%) for initiating drug use among the young abusers, followed by to get pleasure (48.64%) and curiosity (27.58%).
- o Slightly more than half (51.70%) of the young abusers were using drugs for less than a year, while 23.87% were using for one to two years.
- o More than one third (35.43%) of the young abusers spent \$1 - 5 on drugs daily, while 41.02% spent \$6 - 10 a day. 14.56% spent more than \$15 daily.
- o The major sources of drugs at the time of identification were pushers who were addicts themselves (62.47%) and friends (46.29%).
- o Based on the population estimation, the drug abuse problem among the young abusers is more severe among the Indian population (1.202%) when compared to the Chinese (1.058%) and Malay (0.767%) population.
- o A large proportion of the Malay young abusers were found to be students and unemployed, while for the Chinese, a large proportion were found to be the professional, skilled and unskilled worker. A similar trend was found for the Indians except that less Indians were skilled workers.
- o There were some significant difference in the patterns of distribution by monthly income for young abusers by different ethnicity. Most of the Malays are from the \$1 - \$250 category, the Indians from \$251 - \$350, while the Chinese are from the \$351 - \$600 category.
- o A larger proportion of Malays had achieved higher levels of education: lower secondary and upper secondary when compared to the proportion of the Chinese who had only primary education and the proportion of Indians who had no formal education.
- o A larger proportion of the Chinese and Indians were found to be ever arrested.

- o Relatively a larger proportion of Chinese were found to have abused heroin as compared to young abusers of other ethnic groups. The opposite trend was found for the Malays and Indians whereby a larger proportion of them have ever abused tobacco and alcohol.
- o A larger proportion of Chinese young abusers reported the duration of drug use less than 2 years, while a larger proportion of the Malays and Indians reported between 2 and 10 years.
- o Young Chinese abusers spent more money on drugs daily as compared to the Malays and Indians.
- o A majority (84.63%) of the student abusers were Malays, 9.63% were Chinese and 4.05% were Indians.
- o Tobacco was the most common (50.18%) drug ever abused by student abusers while cannabis (54.85%) and heroin (49.38%) were the two next common drugs.
- o A large proportion (60.73%) of the student abusers spent \$1 - \$5 daily on drugs.
- o 58.44% of the student drug abusers obtained their supply of drugs from friends. This indicated that the negative peer influenced among student abusers was important.
- o A larger proportion of the student abusers were in upper secondary school when they were detected, while for non-student abusers, a larger proportion of them had attained only a primary or lower secondary education.
- o Results on duration of drug use suggest that most of the young student abusers were experimental users while a large number of non-student abusers were drug dependants.
- o The most common reason given for discontinued use of drug among the non-students were pressure of the law, while for students, it's because of family.

- o A much larger proportion of young abusers used drugs because of curiosity, while a much smaller proportion do so because of peer influence compared to older abusers.
- o A large proportion of the more elderly abusers (30 years and above) obtained their supply of drug from the drug pusher as compared to young abusers at the age of 21 and below who obtained their supply from friends.
- o There is a gradual decrease in percentage of the Malay young abusers from 1978 through 1980 and a gradual increase from 1980 through 1987. The trend for the Chinese young abusers is reverse of that for the Malays, whilst the trend for the Indians were quite stable over the years.
- o There is an increasing trend in the percentage of young abusers who have attained secondary education and a decreasing trend for those who have attained primary education in those 10 years.
- o There is a decrease in the abuse of heroin by young abusers but an increase in the abuse of cannabis over the years 1978 - 1987.

Conclusion

A majority of the young drug abusers in Malaysia, identified over the year 1978 - 1987 were not chronic and heavy users. There are some influences on the pattern of drug use and the socio-demographic background of young abusers by ethnicity, academic status and age. A larger proportion of the Malay young abusers attained higher education. This indicates a need to investigate further on the psychosocial factors that contributed to this phenomenon. Late adolescence (15 - 19 years old) was found to be the most vulnerable time period to drug abuse for student abusers. A larger proportion of student abusers were found using cannabis while a larger proportion of non-student abusers were found using heroin. A majority of the non-student abusers were found to be 'drop-outs' of Primary six or LCE.

This suggests that preventive measures that is targeted at drop-outs might be the type of effective drug prevention programme for young people. Most of the socio-demographic

characteristics and the pattern of drug use over the years 1978 to 1987 have trends with regular pattern. For the process of planning drug abuse prevention activities, specific need assessments for different target groups should be executed for the purpose of identifying their needs so that planning and implementation of preventive programmes can be effective.

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1.0 INTRODUCTION

1.1 HISTORICAL BACKGROUND OF DRUG ABUSE IN MALAYSIA

Historical documents on the drug abuse in Malaysia reveals that the drug abuse problem (mainly opium addiction) appeared towards the end of 19th Century. In 1925, some measure of governmental restriction was imposed on opium smokers following the Geneva Conference on opium. The Government would sell opium only to those who were registered as opium smokers. A further restriction was imposed in 1934 after another opium conference and opium would only be made available to those recommended by medical practitioners. By the year 1936, there were 60,000 registered opium smokers in the country with an estimated equal number of unregistered users (Lim, 1983). The system prevailed until the outbreak of World War II. By this time, there were 75,000 registered opium smokers and perhaps twice that number of illegal smokers. Opium smoking was only completely banned in 1945 when the war ended.

Historical documents on the use of opiates (mainly morphine) are not available since the government did not control morphine as it did opium, and supply was obtained from illegal sources. The earliest detection on the abuse of cannabis (ganja) was after the World War II among some immigrant workers.

In 1952, the government introduced a law known as the Dangerous Drugs Ordinance prohibiting the possession, use, manufacture, sales and import of all types of dangerous drugs. This ordinance helped reduced the extent of opium abuse.

However, by the late 1960s, the traditional pattern of dangerous drug use began to change. It was observed that increasing number of younger drug abusers were found using a wider range of dangerous drugs, including synthetic (psychotropic) drugs and the use of ever more dangerous means of drug taking. It was also evident that adolescent were contributing substantially to the marked increase in the drug abuse population. A larger number of them abuse heroin and morphine while cannabis was also a popular drug of abuse.

1.2 Research on the Young Abusers

In Malaysia, the earliest scientific research study on the young abusers was done by Navaratnam and Spencer (1976) in West Malaysia. Rather than studying the individuals identified as drug users by the hospital, school or police, the research investigated a representative segment of the whole secondary school population of two states: Penang and Selangor. The study revealed that 11.5% of 16,166 school children surveyed have had some experience with the non-medical use of drugs and that a

trend towards multiple drug use was becoming evident. Other than the general socio-demographic characteristics and general pattern of drug use, the study also surveyed on the family, relationship of the subjects with the parents, school performance, health condition, peer influence, attitude of the subject towards drug use, and source of information about drugs.

A similar study was conducted in 1978 on the school children in Kelantan state (Navaratnam, Spencer and Lee, 1978). In this study, 10.4% of the school children surveyed were found having experienced drugs.

In 1984, a comparative study of the psycho-social profile of drug using and non-drug using school children was conducted by the Centre for Drug Research (Choo et.al., 1986). Among the 1178 students surveyed, 27% reported the use of one or more substances (including tobacco and alcohol). The proportion of students found abusing prescription or illegal drugs either on their own or in conjunction with alcohol and tobacco is 3%. In addition to the general pattern of drug use, the psychological variables such as self-esteem, locus of control, personality trait and the level of anxiety of the drug using and non-drug using students are reported in this study. The sociological variables such as the religiosity, school performance and the relationship with the family members are also reported.

In the recent studies on the health knowledge and attitudes towards drug abuse among the secondary students and the trainee teachers, there are indication on the incidence of drug use for these subjects. 9.0% of the secondary school students in the survey were found to have had experienced dangerous drugs (Hoo and Navaratnam, 1988a). In addition students who smoked or drank have higher tendency to experience drugs. For the trainee teachers from the teacher training colleges and university, 3.6% of them have had experienced drugs, excluding tobacco and alcohol (Hoo and Navaratnam, 1988b).

The studies discussed above are all conducted on the students in schools. However a study on the drug use among non-student youth was conducted in 1981 (Smart et al, 1981). In this study, the general socio-demographic characteristics and the general pattern of drug use are reported for the non-student youth from Chandigarh, Islamabad, Penang, Toronto and Mexico City.

Numerous studies have been conducted in America, Europe, Canada and Australia on the young abusers. Such studies are lacking in most of the other parts of the world. However, the Regional Working Group on Drug-Related Problems in Adolescent was held in Tokyo, Japan in February 1986 to update and exchange information on drug-related problem in the region of western pacific.

1.3 Overview of Current Drug Use Problem in Malaysia

By the end of 1987, the total number of drug addicts/dependents identified by the National Drug Abuse Monitoring System (abbreviated as NDAMS here after). 126,597 represents 0.766% of the total population of Malaysia. For Peninsular Malaysia, the percentage is 0.916% indicating more drug addicts/dependents were identified from the Peninsular compared to Sabah dan Sarawak.

Data collected by the Centre for Drug Research indicate that 42.970% of the identified drug addicts/dependents were 24 years old and below (Foong, K. and Navaratnam, 1987a & 1987b). This percentage leads to an estimate of 54,399 on the total numbers of young abusers of this age group in Malaysia. The number 54,399 represents 0.578% of total young population of Malaysian at the age of 24 years old and below. For Peninsular Malaysia alone, the percentage is 0.696% indicating more young abusers were identified in Peninsular than Sabah and Sarawak by the end of 1987. Comparison on this percentage with that for the older population of Malaysia whom are more than 24 years old (1.015%) reveals that the drug abuse problem is more severe among the older population than the younger population of 24 years old and below. However, without taking into consideration the profile of the population by age, where 56.979% of the Malaysia population are 24 years old and below, the young abusers identified by the NDAMS represents the major group of drug addicts/dependents identified by the end of 1987. Thus, to survey on the severity of the drug abuser problem population by age group, the fact that larger proportion of general population are made up of young people has contributed to a large number of young abusers identified by the NDAMS.

2.0 PURPOSE OF THE STUDY

2.1 GENERAL PURPOSE

The general purpose of the study is to examine the problem of drug abuse among the young abusers of 21 years old and below. In this study, the socio-demographic characteristics of interest are:-

- o year of identification
- o state of identification
- o ethnicity
- o sex
- o marital status
- o occupation
- o monthly income
- o level of education attained
- o criminal record
- o criminal offences committed

The general pattern of drug use are examined based on the:-

- o type of drug ever abused
- o type of drugs abused at the time of identification
- o age of onset of drug use
- o reasons for drug use
- o duration of drug use
- o daily expenditure on drugs
- o sources of drugs
- o reasons for discontinuance of drug use

In addition to the overall examination of this problem, the study attempts to find out whether there are any significant differences in the socio-demographic characteristics and the general pattern of drug use among the young abusers by factors: ethnicity and academic status of abusers (whether they are students or non-students) as well as among the young abusers and the abusers of other age groups.

Apart from these, the study examines the trend over the years 1978 to 1987 of the socio-demographic characteristics and general pattern of drug use listed above and the study also attempts to predict the trend of these factors in the years 1988, 1989 and 1990.

2.2 RESEARCH QUESTION

Specifically, the study will answer the following research questions:-

- (a) What are the pattern of drug use and the socio-demographic background for the young abusers of 21 years old and below?
- (b) Are the pattern of drug use and the socio-demographic background of the young abusers influenced by the ethnicity, academic status (whether they are students or non-students) and age? If yes, what are the significant influences?
- (c) What are the pattern of drug use and the socio-demographic background for the young abusers who were students at the time of identification? Is there any differences between the pattern of drug use and the socio-demographic background for the student young abusers identified by NDAMS and those for the school children in the earlier studies conducted by the Centre for Drug Research?
- (d) What are the trends of the pattern of drug use and socio-demographics characteristics over the years 1978 to 1987?

3.0 METHODOLOGY

3.1 RATIONALE OF THE METHODOLOGY

To date, there exist a number of methods of assessing the extent of the drug abuse in the community. Information concerning about drug use could be gathered from the standardized data provided by the prescription records from the medical and health personnels, sales records of purchasable drug from the pharmaceutical counters and companies, the arrest records from the police and the record from the hospitals, treatment centres and other health centres. In addition, scientific survey for making estimates of drug use is one of the most accurate method available, particularly for indepth research on the psycho-social behaviours and attitudes relating to drug use.

In order to give a comprehensive overall picture of drug abuse in Malaysia, the Centre for Drug Research, Universiti Sains Malaysia has conducted a number of scientific surveys. Please refer to the list of publication of the Centre for Drug Research for the types of scientific surveys executed to date. In addition to implementation of scientific survey to gather information concerning about drug addiction, the Centre has developed and maintained (till 1987) the National Drug Abuse Monitoring System which is an effective and coordinated national integrated drug abuse reporting system for Malaysia. The system provides a powerful epidemiological tool and an essential information source for drug abuse management in the Country. Please refer to Appendix A for more detail description on the National Drug Abuse Monitoring System.

To date, the research on the young abusers conducted by the Centre are all scientific surveys which involved the collection of primary data from the sample and the statistical estimation on the selected factors based on the primary data. However in this study, the data collected by NDAMS over 1978 to 1987 are used for the statistical analysis to answer the research questions listed in section 2.0. Although such statistics may be only a poor guide to the actual picture of drug use in the community since the detection and arrest figures are heavily influenced by national and local enforcement policy; the manpower allocated within the force to drug investigations; differential police and custom activity in the various strata of society; etc., the effective and coordinated national integrated drug abuse reporting system provides a good way of examining the pattern of drug use in the country, geographical variations in incidence and changes over time. In addition, in the survey on the young abusers, such statistics could provide clear picture of opiates and cannabis abuse which is poorly described by the scientific surveys in the schools since the incidence of abuse of opiates and cannabis is general too small to provide a reasonable clear picture on such phenomenon.

3.2 STATISTICAL ANALYSIS

To generate the data for answering the research questions, the records for the addicts who were 21 years old and below at the time of identification by the reporting agencies during the years 1978 to 1987 were selected from the record stored in the NDAMS.

In order to overview the drug abuse problem for the young abusers, the selected records from 1978 to 1987 are combined irrespective of years and a frequency run on these data is executed to provide information on the selected socio-demographic characteristics and general pattern of drug use of the young abusers.

To compare the socio-demographic characteristics and general pattern of drug use of the young abusers by ethnicity, the selected records from 1978 to 1987 are combined irrespective of years and cross tabulation between the selected socio-demographic characteristics and general pattern of drug use, and the ethnicity of the young abusers is executed. χ^2 test is carried out to detect the significant differences in the comparison of the above factors by ethnicity.

For the overview of the drug use problem for the student young abusers, records for the young abusers who were students at time of identification are selected. These selected records are used for frequency run to obtain information on the selected socio-demographic characteristics and general pattern of drug use of the student young abusers.

For the comparison on the socio-demographic characteristics and general pattern of drug use between the student young abusers and non-student abusers, χ^2 test is executed to detect any significant differences.

Similarly, χ^2 test is also used to compare the socio-demographic characteristics and general pattern of drug use between the young abusers of 21 years old and below, addicts of 22 to 30 years old and those more than 30 years old.

In the trend study, for each of the factors examined, a line graph is plotted based on the percentages for the years 1978 to 1987. For trend comparison, a comparison profile plotted against the standard deviation from the mean over the ten years (1978 - 1987) is prepared for each of the factors examined.

3.3 LIMITATION IN THE STATISTICAL ANALYSIS

There are some limitations in the statistical analysis of this study since the study is executed based on the data collected by the NDAMS over 1978 to 1987 where the subjects are not actually contacted by the research group.

The fact that the socio-demographic characteristics and the general pattern of drug use are recorded irrespective of the type of drugs used has placed a constraint on detailed analysis by drug type. In addition, for the polydrug users, the records on the socio-demographic characteristics and the general pattern of drug use for each polydrug user are again irrespective of the type of drugs used. Therefore, care must be taken in interpreting the results on the socio-demographic characteristics and the general pattern of drug use where the results are irrespective of the type of drugs used.

Results of the χ^2 test for the comparison between the student young abusers and the non-students young abusers should be interpreted with care since the number of student young abusers is very much smaller than that of the non-student young abusers. The pattern of distribution in the selected factors for the whole groups might be biased to that of the non-student young abusers.

The results of the analysis on certain socio-demographic characteristic and general pattern of drug use might not be a good guide to the picture of the whole group of young abusers. For example the socio-demographic characteristics: level of education attained, criminal offences committed and monthly income, a great number of the records in the NDAMS does not have data on these socio-demographic characteristics. Hence the analysis on these factors are based on the small number of records available.

4.0 RESULTS

4.1 THE YOUNG ABUSER - AN OVERVIEW

This section examines the socio-demographic background and the pattern of drug use for the young abusers identified by NDAMS during the years 1978 to 1987.

4.1.1 SOCIO DEMOGRAPHIC BACKGROUND OF THE YOUNG ABUSERS

For the purpose of examining the socio-demographic characteristics of the young abusers in this study, the records of the drug addicts/dependents at the age of 21 years old and below, identified by the reporting system during the years 1978 to 1987 are gathered for statistical analysis.

A total of 13,185 young abusers at the age of 21 years old and below were identified during this period of time. Preceding to the further statistical analysis on this group of abusers, the socio-demographic background of these subjects are examined.

a. State of Identification

Table 1.1 indicates that the major states from which the young abusers were identified are Perak (18.17%); Penang (17.12%); Johore (12.64%) and Federal Territory (11.09%). These four states contributed 59.02% of the total numbers of young abusers identified in Malaysia during 1978 - 1987.

TABLE 1.1: DISTRIBUTION OF YOUNG ABUSERS BY STATES OF IDENTIFICATION (1978 - 1987)

State	Frequency (n)	Percentage (%)
Perak	2396	18.17
Pulau Pinang	2257	17.12
Johor	1667	12.64
Wilayah Persekutuan	1462	11.09
Selangor	1056	8.01
Kedah	980	7.43
Kelantan	728	5.52
Pahang	709	5.38
Trengganu	609	4.62
Negeri Sembilan	587	4.45
Melaka	456	3.46
Sarawak	138	1.05
Perlis	106	0.80
Sabah	34	0.26
Total	13185	100.00

b. Ethnicity

Slightly more than half (51.47%) of the identified young abusers were Malays. 36.30% of them were Chinese and about one tenth (10.72%) were Indian. A very small proportion (1.51%) of these young abusers were made up of those categorised under "Others" ethnic group (Please refer to Table 1.2).

TABLE 1.2: DISTRIBUTION OF YOUNG ABUSERS BY ETHNICITY(1978-1987)

Ethnicity	Frequency (n)	Percentage (%)
Malays	6751	51.47
Chinese	4761	36.30
Indian	1406	10.72
Others(Citizen)	137	1.04
Others(Non-Citizen)	61	0.47
Total	13116*	100.00

* 69 (0.52%) cases have no information.

c. Sex

Table 1.3 reveals that the majority (97.56%) of the young abusers were male, with the remaining 2.44% of them female.

TABLE 1.3: DISTRIBUTION OF YOUNG ABUSERS BY SEX (1978 - 1987)

Sex	Frequency (n)	Percentage (%)
Male	12819	97.56
Female	321	2.44
Total	13140*	100.00

* 45 (0.34%) cases have no information.

d. Marital Status

Majority (96.10%) of the young abusers were single. However, a small percentage (3.51%) of them were married. Table 1.4 also indicates that a very small percentage (0.27%) of them were categorised under "Divorced or Separated" and 0.12% under "Widowed".

TABLE 1.4: DISTRIBUTION OF YOUNG ABUSERS BY MARITAL STATUS (1978-1987)

Marital Status	Frequency (n)	Percentage (%)
Single	11478	96.10
Married	419	3.51
Divorced or Separated	32	0.27
Widowed	15	0.12
Total	11944*	100.00

* 1241 (9.41%) cases have no information.

e. Occupation

Table 1.5 shows the distribution of the young abusers by occupation. Only a very small proportion (0.39%) of the young abusers identified were professionals, while a same proportion (0.39%) were officials like police and immigration officers. 4.36% of them were skilled workers in armed force, navy, air force and general technical field, and 1.21% were involved in semi-skilled occupation like clerk. Slightly less than half (47.59%) of the identified young abusers were unskilled workers like labourer and shop assistant. About one tenth (10.34%) of them were categorised under "Others" occupation. A relatively large number of the identified young abusers (31.14%) were unemployed while 4.58% of them were students of primary and secondary schools, colleges and universities.

TABLE 1.5: DISTRIBUTION OF YOUNG ABUSERS BY OCCUPATION
(1978 - 1987)

Occupation	Frequency (n)	Percentage (%)
<u>Professional</u>	50	0.39
<u>Official</u>		
Police Immigration Officer	50	0.39
<u>Skilled Worker</u>		
General Armed forces Navy Air force	565	4.36
<u>Semi-skilled Worker</u>		
Clerk	157	1.21
<u>Unskilled Worker</u>		
Labourer Shop assistant	6165	47.59
<u>Student</u>		
Primary/Secondary College/University	594	4.58
<u>Others</u>	1339	10.34
<u>Unemployed</u>	4034	31.14
Total	12954*	100.00

* 231 (1.75%) cases have no information.

f. Monthly Income

Based on the distribution of monthly income, it is clear that the majority of the young abusers 94.46% are from the \$600 and below income group. 32.49% have an income of \$1 - 250, 33.63% with an income of \$251 - \$350 and 28.34% with an income of \$351 - \$600. Those with an income of \$601 and above are only a small proportion of 5.54% (Table 1.6).

TABLE 1.6: DISTRIBUTION OF YOUNG ABUSERS BY MONTHLY INCOME
(1978 - 1987)

Monthly Income (in ringgit)	Frequency (n)	Percentage (%)
1 - 250	2460	32.49
251 - 350	2546	33.63
351 - 600	2146	28.34
601 - 1000	372	4.91
More than 1000	48	0.63
Total	7572*	100.00

* 5613 (42.57%) cases have no information.

g. Criminality

Based on the criminal records of these young abusers, 30.05% of them were ever arrested, 17.96% were ever convicted and 14.36% were ever incarcerated (Please refer to Table 1.7).

TABLE 1.7: DISTRIBUTION OF YOUNG ABUSERS BY TYPES OF CRIMINAL RECORD (1978 - 1987)

Type of Criminal Record	Frequency(n)	Percentage (%)	Ni*
Ever Arrested	3685	30.05	12264
Ever Convicted	2190	17.96	12192
Ever Incarcerated	1750	14.36	12183

* The total number of cases with information on the respective types of criminal record.

A more detailed study into the types of criminal offence committed, reveals that the most common (76.81%) criminal offence committed by the young abusers was 'Possession of Drugs'. Other types of crime includes 'Stealing' (5.20%), 'Pushing Drugs' (3.27), and 'Robbing' (1.44) (Please refer to Table 1.8).

TABLE 1.8: DISTRIBUTION OF YOUNG ABUSERS BY TYPES OF CRIMINAL OFFENCE COMMITTED (1978 - 1987)

Type of Criminal Offence	Frequency (n)	Percentage (%)
Possession of Drugs	5804	76.81
Stealing	393	5.20
Pushing Drugs	247	3.27
Robbing	109	1.44
Others	1003	13.28
Total	7556*	100.00

* 5629 (42.69%) cases have no information.

4.1.2 OVERALL GENERAL PATTERNS OF DRUG USE

The pattern of drug use among these young abusers are examined with the purpose to understand in more details about the ecology of drug use for this particular age group.

a. Drugs Ever Abused

Heroin was the most common (76.41%) drug ever abused by the young abusers, while tobacco (56.85%) and cannabis (32.72%) were the next two. Other drugs ever abused were alcohol (13.45%), morphine (6.96%), barbiturates (6.32%), opium (4.66%) and mandrax pills (1.14%). Tranquillizers (0.96%), LSD (0.23%) and amphetamines (0.09%) were minor drugs ever abused by these young abusers (Table 1.9).

b. Drugs Abused at the Time of Identification

The pattern of drugs abused at the time of identification was similar to that of drugs ever abused with heroin as the major (75.31%) drug abused, followed by tobacco (51.93%) and cannabis (18.39%).

TABLE 1.9: DISTRIBUTION OF YOUNG ABUSERS BY DRUGS EVER ABUSED (1978 - 1987)

Type of Drugs Ever Abused	Frequency (n)	Percentage (%)	Ni*
Heroin	9841	76.41	12879
Tobacco	7303	56.85	12846
Cannabis	4176	32.72	12763
Alcohol	1721	13.45	12794
Morphine	883	6.96	12688
Barbiturate	802	6.32	12692
Opium	591	4.66	12676
Mandrax Pills	145	1.14	12668
Tranquillizer	121	0.96	12666
LSD	29	0.23	12666
Amphetamine	11	0.09	12666
Others	126	0.99	12667

* The total numbers of cases with information on the respective type of drugs ever abused.

TABLE 1.10: DISTRIBUTION OF YOUNG ABUSERS BY DRUGS ABUSED AT THE TIME OF IDENTIFICATION (1978 - 1987)

Type of Drugs Abused	Frequency (n)	Percentage (%)	Ni*
Heroin	9496	75.31	12609
Tobacco	6524	51.93	12564
Cannabis	2289	18.39	12446
Morphine	743	5.97	12437
Alcohol	688	5.53	12432
Barbiturate	342	2.76	12413
Opium	297	2.39	12413
Tranquillizer	65	0.52	12405
Mandrax Pills	42	0.34	12405
LSD	14	0.11	12405
Amphetamine	9	0.07	12405
Others	112	1.29	8659

* The total numbers of cases with information on the respective types of drugs abused at the time of identification.

Other drugs abused at the time of identification were morphine (5.97%), alcohol (5.53%); barbiturates (2.76%) and opium (2.39%). Tranquillizers (0.52%), mandrax pills (0.34%), LSD (0.11%) and amphetamines (0.07%) were minor drugs currently abused by these young abusers at the time of identification.

c. Age of Onset of Substance Use

More than three quarter (76.49%) of the young abusers started their use of substances between 15 and 19 years of age while 18.59% of them started at the age of 20 or 21 years old. 4.88% started between 10 and 14 years old and a very small proportion of them (0.04%) started before the age of 10 (Please refer to Table 1.11).

TABLE 1.11: DISTRIBUTION OF YOUNG ABUSERS BY AGE OF ONSET OF SUBSTANCE USE (1978 - 1987)

Age of Onset of Drug Use (in years)	Frequency (n)	Percentage (%)
Less than 10	5	0.04
10 - 14	562	4.88
15 - 19	8808	76.49
20 - 21	2140	18.59
Total	11515*	100.00

* 1670 (12.67%) cases have no information.

d. Reasons for Drug Use

Table 1.12 reveals that the most common reason for drug use was "to get along with what my friends were doing" (57.22%) indicating the severity of negative peer group influence towards drug use among the young abusers. Almost half (48.64%) of the abusers used drugs to get pleasure, feel good and get high while 27.58% of them used drugs out of curiosity. A small proportion used drug to escape from their emotional (9.49%) and financial problems (1.28%). 4.64% of them used the drugs accidentally.

e. Duration of Drug Use

Slightly more than half (51.70%) of the young abusers were using drugs for less than a year, while 23.87% were using for one to two years. 18.63% of them were using drugs for two to four years and 4.63% for four to six years. A small proportion of were using the drugs for more than six years, 1.03% for 6.1 to 10.0 year, 0.12% for 10.1 to 15.0 years and 0.02% for more than 15.0 years.

TABLE 1.12: DISTRIBUTION OF YOUNG ABUSERS BY REASONS FOR DRUG USE (1978 - 1987)

Reason for Drug Use	Frequency (n)	Percentage (%)	Ni*
To get along with what my friends were doing	6498	57.22	11356
To get pleasure, feel good, get high	5509	48.64	11326
Curiosity	3114	27.58	11291
To get away from my emotional problems	1066	9.49	11232
Accidental	521	4.64	11218
To get away from my financial problems	143	1.28	11202
Others	649	5.78	11227

* The total numbers of cases with information on respective reason for drug use.

TABLE 1.13: DISTRIBUTION OF YOUNG ABUSERS BY DURATION OF DRUG USE (1978 - 1987)

Duration of Drug Use (in yrs)	Frequency (n)	Percentage (%)
Less than 1.1	5827	51.70
1.1 - 2.0	2690	23.87
2.1 - 4.0	2099	18.63
4.1 - 6.0	522	4.63
6.1 - 10.0	116	1.03
10.1 - 15.0	14	0.12
More than 15.0	2	0.02
Total	11270*	100.00

* 1915 (14.52%) cases have no information.

f. Daily Expenditure on Drugs Used At The Time of Identification

Data in Table 1.14 reveals that 35.43% of the young abusers spent one to five ringgit on drugs daily while 41.02% spent six to ten ringgit a day. The rest spent more than ten ringgit daily with 8.99% spending 11 to 15 ringgit daily and 14.56% more than 15 ringgit daily.

g. Sources of Drugs Used At The Time of Identification

The major source of drugs, were pushers who were addicts themselves (62.47%) and friends (46.29%). Other sources were pushers who were non-addicts (15.09%); coffee shops (3.18%) shops other than coffee shops (2.56%) and opium dens (0.78%). (Table 1.15)

TABLE 1.14: DISTRIBUTION OF YOUNG ABUSERS BY DAILY EXPENDITURE ON DRUG (1978 - 1987)

Daily Expenditure on Drug (Ringgit)	Frequency (n)	Percentage (%)
1 - 5	3932	35.43
6 - 10	4552	41.02
11 - 15	997	8.99
16 and above	1616	14.56
Total	11097*	100.00

* 2088 (15.84%) cases have no information.

TABLE 1.15: DISTRIBUTION OF YOUNG ABUSERS BY SOURCE OF DRUGS
(1978 - 1987)

Source of Drugs	Frequency (n)	Percentage (%)	Ni*
Pusher (Addict)	7820	62.47	12518
Friends	5777	46.29	12481
Pusher (Non-Addicts)	1873	15.09	12413
Coffee Shops	392	3.18	12340
Other Shops	316	2.56	12335
Opium Den	96	0.78	12335
Others	902	7.29	12377

* The total numbers of cases with information on the respective sources of drugs.

4.2 YOUNG ABUSERS OF DIFFERENT ETHNICITY

Based on the data presented in Table 1.2, slightly more than half (51.47%) of the young abusers, at the age 21 and below identified during the years 1978 - 1987, were Malays, slightly more than one third (36.30%) were Chinese and about one tenth (10.72%) were Indians. A very small number (1.51%) of these young abusers were from "Others" ethnic group. A similar distribution was found for the drug dependents of all age groups identified by the end of 1987. 48.02% were Malays, 37.03% were Chinese; 13.00% were Indians and 1.85% were of "Others" ethnicity.

From a glance at these data, one cannot help making a conclusion that the drug abuse problem is most severe among the Malay ethnic group and least severe among the "Others" ethnic group by examining the proportion of identified addicts/dependents of different ethnicities. However, further investigation by taking into consideration the ethnicity profile of Malaysian population, it is found that a different pattern on the severity of drug abuse problem among the different ethnic groups came into being. Generally, it is estimated that 0.767% of the total of Malay population in Peninsular Malaysia are involved in drug abuse while 1.058% for the Chinese. The figure for the Indian ethnic group is 1.202% and 2.690% for the population belonging to "Others" ethnic group. When focus on only the young population at the age of 24 and below, the proportion of these young people involved in drug abuse by different ethnic groups are estimated at 0.603% for the Malays, 0.837% for the Chinese, 0.761% for the Indians and 1.891% for the "Others" ethnic group. Based on these estimates, generally, among the three major ethnic groups in Malaysia, the drug abuse problem is more severe among the Indian population when compared to the Chinese and Malay population. When looking at the young population at the age of 24 and below, the drug abuse problem is most severe among the Chinese young population and least severe among the Malays.

4.2.1 SOCIO-DEMOGRAPHIC BACKGROUND BY ETHNICITY

To study in more detail about the drug abuse problem among the young abusers of different ethnic groups, the records on the socio-demographic aspects of the identified young abusers are compared between the different ethnic groups.

Out of the total 13,185 records gathered during the years 1978 - 1987, 13,116 of them were completed with the information on the ethnicity of the identified young abusers. From these 13,116 records, 6,751 (51.47%) belonged to the young abusers of Malay ethnic group, 4,761 (36.30%) Chinese ethnic group, 1,406 (10.72%) Indian ethnic group, and a small proportion of the young abusers belonged to "Others" ethnic group with 137 (1.04%) of them citizen of Malaysia and 61 (0.47%) non-citizen.

a. State of Identification

Table 2.1 shows the distribution of young abusers by ethnic group and state of identification.

TABLE 2.1: DISTRIBUTION OF YOUNG ABUSERS BY ETHNICITY AND STATES OF IDENTIFICATION

State	Ethnicity					Total
	Malay	Chinese	Indian	Others (Citizen)	Others (Non-Citizen)	
Perlis	56 (0.83)	13 (0.27)	7 (0.50)	16 (11.68)	13 (21.31)	105 (0.80)
Kedah	584 (8.65)	285 (5.99)	73 (5.19)	7 (5.11)	25 (40.98)	974 (7.43)
Penang	684 (10.13)	1028 (21.59)	498 (35.42)	29 (21.17)	2 (3.28)	2241 (17.09)
Perak	659 (9.76)	1366 (28.69)	335 (23.83)	22 (16.06)	1 (1.64)	2383 (18.17)
Selangor	551 (8.16)	356 (7.48)	141 (10.03)	5 (3.65)	0 (0.00)	1053 (8.03)
Federal Territory	824 (12.21)	432 (9.07)	182 (12.94)	14 (10.22)	1 (1.64)	1453 (11.08)
Negeri Sembilan	303 (4.49)	237 (4.98)	42 (2.99)	4 (2.92)	0 (0.00)	586 (4.47)
Malacca	285 (4.22)	141 (2.96)	26 (1.85)	3 (2.19)	0 (0.00)	455 (3.47)
Johor	1032 (15.29)	548 (11.51)	75 (5.33)	6 (4.38)	1 (1.64)	1662 (12.67)
Pahang	498 (7.38)	189 (3.97)	17 (1.21)	2 (1.46)	0 (0.00)	706 (5.38)
Trengganu	564 (8.35)	34 (0.71)	6 (0.43)	0 (0.00)	0 (0.00)	604 (4.61)
Kelantan	663 (9.82)	29 (0.61)	3 (0.21)	14 (10.22)	16 (26.22)	725 (5.53)
Sabah	3 (0.04)	21 (0.44)	0 (0.00)	6 (4.38)	2 (3.28)	32 (0.24)
Sarawak	45 (0.67)	82 (1.72)	1 (0.07)	9 (6.57)	0 (0.00)	137 (1.04)
Total	6751 (100.0)	4761 (100.0)	1406 (100.0)	137 (100.0)	61 (100.0)	13116 (100.0)

At the level of significance $p = 0.001$, there were some differences in the distribution of the young abusers of different ethnic groups according to the state of identification. The two major state of identification for the Malays were Johor (15.29%) and Federal Territory (12.21%), while for the Chinese were Perak (28.69%) and Penang (21.59%). Similarly for the Indians, the two major state of identification were Penang (35.42%) and Perak (23.83%). For the young abusers of "Others" ethnic group, those who were the citizen of Malaysia mainly identified from Penang (21.17%) and Perak (16.06%) while those non-citizen of Malaysia were identified from Kedah (40.98%) and Kelantan (26.22%).

These distributions are not indicative of the higher involvement of the specific ethnic groups within the states. The distribution of the general population by ethnicity within each state should be used as a basis for comparison purposes.

The differences in the distribution pattern of the young abusers of different ethnicity by state of identification may have been partially due to the general population distribution by ethnicity. By the mid of 1986, the three major states with the majority of the population by ethnicity are shown in Table 2.1a.

TABLE 2.1a: STATES WITH MAJORITY OF THE POPULATION BY ETHNICITY

Ethnicity	States	Number
Malays	Johor*	1,077,744
	Kelantan	1,011,840
	Perak	956,073
Chinese	Perak*	814,460
	Johor	711,083
	Selangor	644,856
Indian	Selangor	310,955
	Perak	289,476
	Fed. Territory	156,037
Others (excluding Sabah & Sarawak)	Kedah	20,744
	Penang	12,163
	Fed. Territory	10,851

* State identified as the major state of identification for young abuser of the respective ethnicity.

Source: Department of Statistics Malaysia, 1986

The partial overlapping of the major state of identification and state with majority of the population for different ethnic groups may have suggested that the larger number of the particular ethnic group in certain states have contributed in the identification of the major state of identification of young abuser of that ethnic group.

However, other than the ethnicity profile of the general population by state, the geographical location of the states is another factor for the pattern of distribution for the young abusers of different ethnicity by state of identification. A good example is the Penang state which is identified as the major state of identification for Chinese and Indian young abusers and those with "Others(citizen)" ethnicity due to its location along the drug route from the opium producing areas of the Golden Triangle, one of the largest producing areas of opium in the world, to Australia and the West. Another two examples are the states of Kedah and Kelantan. By referring to the ethnic group of "Others (non-citizen)" in Table 2.1, it is found that those two states were identified as major states of identification for this ethnic group. The location of these two states at the border of Malaysia and Thailand has contributed to the identification of more young abusers of this ethnic group.

b. Sex

TABLE 2.2: DISTRIBUTION OF YOUNG ABUSERS BY ETHNICITY AND SEX

Sex	Ethnicity					Total
	Malay	Chinese	Indian	Others (Citizen)	Others (Non-Citizen)	
Male	6578 (97.63)	4634 (97.60)	1369 (97.65)	130 (95.59)	54 (88.52)	12765 (97.55)
Female	160 (2.37)	114 (2.40)	33 (2.35)	6 (4.41)	7 (11.48)	320 (2.45)
Total	6738 (100.0)	4748 (100.0)	1402 (100.0)	136 (100.0)	61 (100.0)	13085* (100.0)

$$\chi^2 = 23.28; \text{ df} = 4; p < 0.001$$

* 31 (0.24%) cases have no information.

For the Malays, Chinese and Indians, there were no major differences where the majority (about 98%) of them are males.

However, there were more females identified as young abusers for the ethnic group "Others" especially for those non-citizens (Table 2.2).

c. Current Age

Based on the result of χ^2 test at the level of significance $p = 0.05$, there was no difference in age distribution between the different ethnic groups. Generally, about 54% of the young abusers of all ethnic groups were 20 - 21 years old. While about 45% of them were 15 - 19 years old. A very small proportion of them were below 15 years of age.

TABLE 2.3: DISTRIBUTION OF YOUNG ABUSERS BY ETHNICITY AND CURRENT AGE

Current Age (in years)	Ethnicity					Total
	Malay	Chinese	Indian	Others (Citizen)	Others (Non-Citizen)	
< 9	0 (0.00)	3 (0.06)	0 (0.00)	0 (0.00)	0 (0.00)	3 (0.02)
10 - 14	40 (0.59)	29 (0.61)	15 (1.07)	2 (1.46)	1 (1.64)	87 (0.66)
15 - 19	3086 (45.71)	2117 (44.47)	620 (44.10)	61 (44.53)	23 (37.70)	5907 (45.04)
20 - 21	3625 (53.70)	2612 (54.86)	771 (54.84)	74 (54.01)	37 (60.66)	7119 (54.28)
Total	6751 (100.0)	4761 (100.0)	1406 (100.0)	137 (100.0)	61 (100.0)	13116 (100.0)

$$\chi^2 = 9.98^* ; \text{ df} = 8 ; p > 0.05$$

* The category of 1 - 9 years was omitted in running χ^2 test.

d. Marital Status

Majority of the young abusers identified during the years 1978 - 1987 were single.

TABLE 2.4: DISTRIBUTION OF YOUNG ABUSERS BY ETHNICITY AND MARITAL STATUS

Marital Status	Ethnicity					Total
	Malay	Chinese	Indian	Others (Citizen)	Others (Non-Citizen)	
Single	5996 (96.24)	4081 (96.71)	1198 (94.63)	112 (97.39)	43 (70.49)	11430 (96.12)
Married	204 (3.27)	128 (3.03)	63 (4.98)	2 (1.74)	18 (29.51)	415 (3.49)
Divorced/ separated	19 (0.30)	9 (0.21)	3 (0.24)	1 (0.87)	0 (0.00)	32 (0.27)
Widowed	11 (0.18)	2 (0.05)	2 (0.16)	0 (0.00)	0 (0.00)	15 (0.13)
Total	6230 (100.0)	4220 (100.0)	1266 (100.0)	115 (100.0)	61 (100.0)	11892* (100.00)

$$\chi^2 = 133.53^{**} ; df = 4 ; p < 0.001$$

* 1224 (9.33%) cases have no information

** The categories of divorced or separated and widowed was omitted in running χ^2 test.

The result of χ^2 test indicates that there were some significant differences in the pattern of distribution at the level $p = 0.001$. A larger proportion of the young abusers of "Others (non-citizen)" ethnic group were married compared to the other ethnic groups (Table 2.4).

e. Occupation

Relatively, a larger proportion of the Malay young abusers were found to be students and unemployed. For the Chinese, larger proportion of them were found to be the professionals, skilled worker and unskilled worker while less were unemployed or were students. Similar trend was found for the Indians except that less Indians were skilled workers. For the ethnic group "Others (citizen)", a trend similar to that of the Malays was found where there were more students and the unemployed. A totally

different trend was found for the ethnic group "Others (non-citizen)". A very much larger proportion of them were unemployed as "Others" occupations and a very much smaller proportion of them were unemployed. Other than these, a large proportion of them were unskilled workers (Table 2.5).

TABLE 2.5: DISTRIBUTION OF YOUNG ABUSERS BY ETHNICITY AND OCCUPATION

Occupation	Ethnicity					Total
	Malay	Chinese	Indian	Others (Citizen)	Others (Non-Citizen)	
Professional	20 (0.30)	24 (0.51)	5 (0.36)	0 (0.00)	0 (0.00)	49 (0.33)
Official Police Immigration Officer	47 (0.71)	1 (0.02)	1 (0.07)	1 (0.74)	0 (0.00)	50 (0.39)
Skilled Worker Gen. Armed Force, Navy, Air Force	234 (3.54)	294 (6.28)	29 (2.09)	5 (3.68)	1 (1.64)	563 (4.37)
Semi-Skilled Worker Clerk	120 (1.81)	27 (0.58)	7 (0.51)	2 (1.47)	1 (1.64)	157 (1.22)
Unskilled Worker Labourer	2749 (41.5)	2505 (53.49)	797 (57.5)	56 (41.18)	31 (50.82)	6138 (47.62)
Student Pri. Sec. College University	501 (7.56)	57 (1.22)	24 (1.73)	8 (5.89)	2 (3.28)	592 (4.60)
Others	685 (10.34)	475 (10.14)	129 (9.31)	17 (12.50)	23 (37.70)	1329 (10.31)
Unemployed	2267 (34.23)	1300 (27.76)	394 (28.43)	47 (34.56)	3 (4.92)	4011 (31.12)
Total	6623 (100.0)	4683 (100.0)	1386 (100.0)	136 (100.0)	61 (100.0)	12889* (100.0)

* 227 (1.73%) cases have no information

f. Monthly Income by Ethnicity

For the purpose of running χ^2 test on the data, the income category of >\$1000 is omitted due to the number of young abusers under this category being negligible.

Based on the results of the χ^2 test at the level of $p = 0.001$ there were some significant differences in the patterns of distribution by monthly income for the young abusers by different ethnicity. Relatively the "Others" (non-citizen) make up a large proportion of the \$601 - \$1000 and also the lowest \$1 - \$250. Most of the Malays are from the \$1 - 250 category, the Indians from \$251 - \$350 category while the Chinese make up the bulk of the \$351 - \$600 category (Table 2.6).

TABLE 2.6: DISTRIBUTION OF YOUNG ABUSERS BY ETHNICITY AND MONTHLY INCOME

Monthly Income	Ethnicity					Total
	Malay	Chinese	Indian	Others (Citizen)	Others (Non-Citizen)	
1 - 250	1325 (37.17)	791 (26.49)	294 (33.70)	21 (32.81)	19 (38.78)	2450 (32.51)
251 - 350	1275 (35.76)	896 (30.00)	329 (37.73)	22 (34.38)	14 (28.57)	2536 (33.65)
351 - 600	846 (23.73)	1042 (34.90)	218 (25.00)	18 (28.13)	12 (24.49)	2136 (28.34)
601 - 1000	100 (2.81)	235 (7.87)	26 (2.98)	2 (3.13)	4 (8.16)	367 (4.87)
> 1000	19 (0.53)	22 (0.74)	5 (0.57)	1 (1.56)	0 (0.00)	47 (0.62)
Total	3565 (100.0)	2986 (100.0)	872 (100.0)	64 (100.0)	49 (100.0)	7536* (100.0)

$\chi^2 = 275.761^{**}$; df = 9 ; $p < 0.001$

* 5,580 (42.54%) cases have no information.

** The category >\$1000 was omitted in running χ^2 test.

g. Level of Education

Table 2.7 presents the findings on the level of education of the young abusers of different ethnicity.

TABLE 2.7: DISTRIBUTION OF YOUNG ABUSERS BY ETHNICITY AND LEVEL OF EDUCATION

Level of Education	Ethnicity					Total
	Malay	Chinese	Indian	Others (Citizen)	Others (Non-Citizen)	
None	35 (2.11)	30 (2.58)	59 (12.97)	7 (18.92)	3 (5.17)	134 (3.97)
Primary	344 (20.71)	586 (50.39)	217 (47.69)	11 (29.73)	37 (63.79)	1195 (35.42)
Lower Secondary	873 (52.56)	493 (42.39)	157 (34.51)	12 (32.43)	14 (24.14)	1549 (45.91)
Upper Secondary	405 (24.38)	54 (4.64)	22 (4.84)	6 (16.22)	0 (0.00)	487 (14.43)
College/University	4 (0.24)	0 (0.00)	0 (0.00)	0 (0.00)	1 (1.72)	5 (0.15)
Others	0 (0.00)	0 (0.00)	0 (0.00)	1 (2.70)	3 (5.17)	4 (0.12)
Total	1661 (100.0)	1163 (100.0)	455 (100.0)	37 (100.0)	58 (100.0)	3374* (100.00)

$\chi^2 = 590.864^{**}$; df = 9 ; $p < 0.001$

* 9742 (74.28%) cases have no information

** The categories college/university and others were omitted in running χ^2 test.

At the level $p = 0.01$ there were some significant differences in the patterns of distribution by the level of education for the young abusers of different ethnicity. Relatively, a larger proportion of the Malays had achieved higher levels of education: lower secondary and upper secondary. The difference is most obvious when category "Upper Secondary" is referred. A larger proportion of the Chinese had only a primary education while for the Indians and those from "Others (citizen)" ethnicity, a larger proportion of them had no formal education.

h. Criminality

TABLE 2.8: DISTRIBUTION OF YOUNG ABUSERS BY ETHNICITY AND TYPES OF CRIMINAL RECORD

Types of Criminal Record	Ethnicity					Total	P values	Ni*
	Malay	Chinese	Indian	Others (Citizen)	Others (Non-Citizen)			
Ever Arrested	1725 (27.17)**	1425 (32.74)	471 (35.71)	39 (29.55)	5 (8.33)	3665 (30.01)	< 0.001	12214
Ever Convicted	995 (15.79)	837 (19.31)	315 (23.97)	26 (19.70)	5 (8.33)	2178 (17.94)	< 0.001	12143
Ever Incarcerated	732 (11.62)	708 (16.36)	274 (20.82)	18 (13.64)	5 (8.33)	1737 (14.32)	< 0.001	12133

* The total number of cases responded with information on the respective type of criminal record.

** The percentage in bracket indicate the proportion of the young abuser of the respective ethnicity in the category of the type of criminal record concerned.

For each category of criminal record, there were some significant differences between the young abusers of different ethnic groups at the level $p = 0.001$. A larger proportion of the Chinese and Indians were found ever arrested while a very much smaller proportion of "Others (non-citizen)" were ever arrested. However, more Indians were ever convicted and ever imprisoned while less Malays and "Others (non-citizen)" were ever convicted and ever incarcerated (Table 2.8).

For a slightly more detailed analysis on the criminality of these young abuser, the records on the type of criminal offence committed were examined.

TABLE 2.9: DISTRIBUTION OF YOUNG ABUSERS BY ETHNICITY AND TYPE OF CRIMINAL OFFENCE COMMITTED

Type of Criminal	Ethnicity					Total
	Malay	Chinese	Indian	Others (Citizen)	Others (Non-Citizen)	
Possession of Drugs	2546 (72.66)	2383 (81.11)	725 (78.80)	71 (79.78)	43 (74.14)	5768 (76.81)
Stealing	262 (7.48)	57 (1.94)	68 (7.39)	1 (1.12)	1 (1.72)	389 (5.18)
Pushing Drugs	92 (2.63)	127 (4.32)	19 (2.07)	2 (2.25)	6 (10.34)	246 (3.28)
Robbing	40 (1.14)	51 (1.74)	17 (1.85)	0 (0.00)	1 (1.72)	109 (1.45)
Others	564 (16.09)	320 (10.89)	91 (9.89)	15 (16.85)	7 (12.07)	997 (13.28)
Total	3504 (100.0)	2938 (100.0)	920 (100.0)	89 (100.0)	58 (100.0)	7509* (100.00)

$$\chi^2 = 189.71^{**} ; df = 12 ; p < 0.001$$

* 5,607 (42.75%) cases have no information

** The categories of others (citizen) and others (non-citizen) are combined in running χ^2 test at the level $p = 0.001$

Possession of drugs was the most common criminal offence committed by all the different ethnic groups (Table 2.9). Where the other crimes are concerned, a larger proportion of Malays

were involved in stealing when compared to the Chinese. Indians were found to be more involved in stealing but less involved in pushing drugs.

4.2.2 OVERALL GENERAL PATTERNS OF DRUG USE FOR YOUNG ABUSERS OF DIFFERENT ETHNICITY

The general overall patterns of drug use were examined earlier. However, for a multi-ethnic country like Malaysia where the drug use history is closely related to race factor, it is vital to study and compare the patterns of drug use for different ethnic groups to see if there is any cultural influence on the drug use behaviour of the young abusers.

a. Drugs Ever abused

The four major drugs ever abused for all ethnic groups were heroin, tobacco, cannabis and alcohol. However, when X^2 test were carried out to see any differences in the pattern of distribution of young abusers of different ethnicity by type of drug ever abused, X^2 values indicate that there were some significant differences in the patterns of distribution for all the four major drugs ever abused at the level of $p = 0.001$.

Relatively, a much larger proportion of Chinese were found to have ever abused heroin while smaller proportion of them have ever abused cannabis compared to young abusers of other ethnic groups. The opposite trend was found for the Malays, Indians and young abusers of "Others" ethnicity. When tobacco and alcohol were examined, it was found that larger proportion of the Indians and young abusers of "Others (non-citizen)" ethnicity were smokers and drinkers, while a smaller proportion of the Chinese were found to be smokers.

X^2 tests have also shown that there were some significant differences in the patterns of distribution of these young abusers for some minor drugs ever abused, like tranquillizers, barbiturates, mandrax pills and morphine at the level $p = 0.001$. Relatively, a larger proportion of the Malays were found to have ever abused morphine while a smaller proportion of the Indians did so. Less Chinese had ever abused mandrax pills. For the young abusers in "Others" ethnic group, larger proportion of those who are citizens of Malaysia had ever abused tranquillizer, barbiturates and Mandrax pills while more non-citizens, had ever abused barbiturates but less had ever abused morphine (Table 2.10).

TABLE 2.10: DISTRIBUTION OF YOUNG ABUSERS BY ETHNICITY AND DRUGS EVER ABUSED

Types of Drug Ever Abused	Ethnicity					Total	P values	N*
	Malay	Chinese	Indian	Others (Citizen)	Others (Non-Citizen)			
Tobacco	3877 (58.80)**	2440 (52.90)	833 (60.14)	71 (53.79)	49 (84.48)	7270 (56.89)	< 0.001	12780
Alcohol	841 (12.88)	568 (12.44)	259 (18.84)	21 (16.03)	14 (24.14)	1703 (13.45)	< 0.001	12658
Tranquillizer	82 (1.26)	27 (0.59)	8 (0.59)	4 (3.05)	0 (0.00)	121 (0.96)	< 0.001	12601
Barbiturates	506 (7.76)	218 (4.79)	56 (4.10)	13 (9.92)	6 (10.34)	799 (6.33)	< 0.001	12626
Mandrax pills	101 (1.55)	29 (0.64)	11 (0.81)	3 (2.29)	1 (1.72)	145 (1.15)	< 0.001	12603
Amphetamine	10 (0.15)	0 (0.00)	1 (0.07)	0 (0.00)	0 (0.00)	11 (0.09)	> 0.1	12601
LSD	20 (0.31)	5 (0.11)	2 (0.15)	1 (0.76)	1 (1.72)	29 (0.23)	> 0.01	12601
Cannabis	2949 (44.82)	512 (11.25)	605 (44.03)	66 (49.25)	24 (41.38)	4156 (32.73)	< 0.001	12697
Opium	289 (4.44)	232 (5.10)	52 (3.81)	13 (9.92)	3 (5.17)	589 (4.67)	> 0.01	12611
Morphine	592 (9.09)	232 (5.10)	46 (3.37)	8 (6.02)	1 (1.72)	879 (6.96)	< 0.001	12623
Heroin	4648 (70.46)	4039 (87.12)	976 (70.37)	91 (67.41)	38 (65.52)	9792 (76.42)	< 0.001	12813
Others	74 (1.14)	37 (0.81)	6 (0.44)	7 (5.34)	0 (0.00)	124 (0.98)	< 0.001	12602

* Total numbers of cases responded with information on each type of drug ever abused.

** The percentage in bracket indicate the proportion of the young abuser of the respective ethnicity using the type of drug concerned.

b. Drug Abused at the Time of Identification.

TABLE 2.11: DISTRIBUTION OF YOUNG ABUSERS BY ETHNICITY AND DRUG ABUSED AT IDENTIFICATION

Drug Currently Abused	Ethnicity					Total	p Values	N*
	Malay	Chinese	Indian	Others (Citizen)	Others (Non-Citizen)			
Tobacco	3446 (53.63)**	2200 (48.46)	738 (54.55)	66 (51.56)	46 (85.19)	6496 (51.97)	< 0.001	12500
Alcohol	303 (4.76)	269 (5.99)	97 (7.26)	7 (5.51)	9 (16.67)	685 (5.54)	< 0.001	12368
Tranquillizer	44 (0.69)	18 (0.40)	0 (0.00)	3 (2.36)	0 (0.00)	65 (0.53)	< 0.001	12341
Barbiturates	207 (3.26)	105 (2.35)	18 (1.35)	8 (6.30)	2 (3.70)	340 (2.75)	< 0.001	12349
Mandrax pills	32 (0.50)	6 (0.13)	2 (0.15)	1 (0.79)	1 (1.85)	42 (0.34)	> 0.001	12341
Amphetamine	7 (0.11)	1 (0.02)	1 (0.08)	0 (0.00)	0 (0.00)	9 (0.07)	> 0.1	12341
LSD	9 (0.14)	2 (0.04)	3 (0.23)	0 (0.00)	0 (0.00)	14 (0.11)	> 0.1	12341

* Total numbers of cases responded with information on the respective type of drug abused at the time of identification.

** The percentage in bracket indicate the proportion of the young abuser of the respective ethnicity using the type of drug concerned.

The three major drugs abused by the young abusers at the time of identification were tobacco, cannabis and heroin. Results of the χ^2 test indicate that there were some significant differences in the patterns of distribution for the three major drugs abused at the time of identification among the young abusers of different ethnic groups at the level of $p = 0.001$. A larger proportion of the Malays and Indians were found using cannabis but smaller proportion of them were using heroin, while a larger proportion of Chinese were found using heroin and a smaller proportion of them were using cannabis. For the young abusers of "Others" ethnic group, a larger proportion of them were found using cannabis and smaller proportion of them using heroin at the time of identification. However, very much more of the young abusers of "Others (non-citizen)" were smoking.

Based on the results of χ^2 tests there were also some significant differences in the patterns of distribution of those young abusers of different ethnicity for some minor drugs abused at the time of identification like alcohol, tranquillizer, barbiturate and morphine at the level $p = 0.001$. A larger proportion of the Malays were using morphine while a smaller proportion of the Indians were using it. Larger proportions of Indians and "Others (Non-citizen)" were drinking alcohol while a larger proportion of the young abusers from category "Others (citizen)" were using tranquillizers and barbiturates.

c. Age of Onset of Substance Use

Data in Table 2.12 indicate that generally majority (more than one seventh) of the young abusers of all ethnic groups started using drugs between the age of 15 and 19 years. To look into details on the patterns of distribution, χ^2 test was carried out. The categories "Others (citizen)" and "Others (Non-citizen)" were combined for this purpose.

TABLE 2.12: DISTRIBUTION OF YOUNG ABUSERS BY ETHNICITY AND AGE OF ONSET OF SUBSTANCES USE

Age of onset	Ethnicity					Total
	Malay	Chinese	Indian	Others (Citizen)	Others (Non-Citizen)	
Less than 9	2 (0.03)	2 (0.05)	1 (0.08)	1 (0.88)	0 (0.00)	6 (0.05)
10 - 14	362 (5.96)	110 (2.75)	75 (6.21)	11 (9.73)	4 (7.69)	562 (4.91)
15 - 19	4663 (76.73)	3085 (77.07)	885 (73.26)	82 (72.57)	37 (71.15)	8752 (76.42)
20 - 21	1050 (17.28)	806 (20.13)	247 (20.45)	19 (16.81)	11 (21.15)	2133 (18.62)
Total	6077 (100.0)	4003 (100.0)	1208 (100.0)	113 (100.0)	52 (100.0)	11453* (100.00)

$$\chi^2 = 77.61 ; df = 9 ; p < 0.001$$

* 1663 (12.68%) cases have no information

At the level $p = 0.001$, there were some significant differences in the patterns of distribution of the young abusers of different ethnic groups in relation to the age of onset of substance use. Relatively for the Malays, a slightly larger proportion started at the earlier age between 10 and 14 years and a smaller proportion at the later age of 20 or 21 years. In the case of Chinese young abusers, smaller proportion started at an earlier age between 10 and 14 years while larger proportion at the age of 20 or 21 years old. For the Indians, a relatively larger proportion started at the earlier age between 10 and 14 years and at the later age of 20 or 21 years old, while a smaller proportion started at the age between 15 and 19 years. On the basis on these findings, for the three major ethnic groups in Malaysia, the Malay and Indian young abusers tend to start using drugs at an earlier age compared to the Chinese. When the young abuser of "Others" ethnicity were examined, very much more of them started using drugs at an early age of between 10 and 14 years.

d. Reasons for Drug Use

Results show that at the level of significance $p = 0.01$, smaller proportion of the Malays gave the reason "To get along with what my friends were doing". A larger proportion of them gave "Curiosity" while a smaller proportion of Chinese gave the same reason. A larger proportion of the Indians and the young abusers of "Others (non-citizen)" ethnic group gave the reason "To get along with what my friends were doing". A larger proportion of the young abusers of "Others" ethnic group gave the reason "To get away from my emotional problems" while a larger proportion of the young abusers of ethnic group "Others (non-citizen)" gave "Curiosity" (Table 2.13).

TABLE 2.13: DISTRIBUTION OF YOUNG ABUSERS BY ETHNICITY AND REASONS FOR DRUG USE

Reason for Drug Use	Ethnicity					Total	P values	N*
	Malay	Chinese	Indian	Others (Citizen)	Others (Non-Citizen)			
To get along with what my friends were doing	3160 (53.41)	2436 (60.93)	774 (63.39)	62 (55.36)	38 (69.09)	6470 (57.24)	< 0.001	11303
To get pleasure, feel good, get high	2886 (48.84)	1913 (48.08)	606 (49.67)	48 (43.64)	34 (61.82)	5487 (48.67)	> 0.1	11273
Curiosity	1835 (31.11)	919 (23.19)	295 (24.34)	29 (26.61)	24 (43.64)	3102 (27.60)	< 0.001	11238
To get away from my emotional problems	634 (10.80)	296 (7.51)	104 (8.62)	17 (15.60)	10 (18.18)	1061 (9.49)	< 0.001	11178
To get away from my financial problems	71 (1.21)	58 (1.48)	11 (0.91)	2 (1.82)	1 (1.82)	143 (1.28)	> 0.001	11149
Accidental	253 (4.32)	215 (5.46)	43 (3.57)	6 (5.45)	3 (5.45)	520 (4.66)	> 0.01	11165
Others	243 (4.15)	256 (6.49)	143 (11.80)	6 (5.50)	1 (1.82)	649 (5.81)	< 0.001	11174

* Total number of cases responded with information on the respective categories of reasons for drug use.

** The percentage in bracket indicates the proportion of the young abuser of the respective ethnicity giving the reason for drug use concerned.

e. Duration of Drug Use

At the significant level $p = 0.001$, a larger proportion of the Chinese young abusers tended to report the duration of drug use less than 2 years while larger proportion of the Malays and Indians tended to report between 2 and 10 years. For the young abusers of "Others (non-citizen)" ethnicity, a larger proportion of them report the use for less than 1 year and also between 6.1 and 10.0 years while more of those of "Others (citizen)" report the use between 2 and 10 years and less of them 2 years and below.

TABLE 2.14: DISTRIBUTION OF YOUNG ABUSERS BY ETHNICITY AND DURATION OF DRUG USE

Duration of Drug Use (in years)	Ethnicity					Total
	Malay	Chinese	Indian	Others (Citizen)	Others (Non-Citizen)	
Less than 1.1	2960 (49.62)	2177 (55.69)	579 (49.23)	51 (46.79)	30 (58.82)	5797 (51.71)
1.1 - 2.0	1378 (23.10)	991 (25.35)	274 (23.30)	24 (22.02)	8 (15.69)	2675 (23.86)
2.1 - 4.0	1214 (20.35)	604 (15.45)	237 (20.15)	25 (22.94)	8 (15.69)	2088 (18.63)
4.1 - 6.0	335 (5.62)	114 (2.92)	60 (5.10)	6 (5.50)	3 (5.88)	518 (4.62)
6.1 - 10.0	71 (1.19)	17 (0.43)	23 (1.96)	3 (2.75)	2 (3.92)	116 (1.03)
10.1 - 15.0	7 (0.12)	4 (0.10)	3 (0.26)	0 (0.00)	0 (0.00)	14 (0.12)
More than 15.0	0 (0.00)	2 (0.05)	0 (0.00)	0 (0.00)	0 (0.00)	2 (0.02)
Total	5965 (100.0)	3909 (100.0)	1176 (100.0)	109 (100.0)	51 (100.0)	11210* (100.00)

$$\chi^2 = 129.02^{**}; df = 16; p < 0.001$$

* 1906 (14.53%) cases have no information

** The categories "10.1 - 15.0" and "more than 15.0" was omitted in running χ^2 test.

f. Daily Expenditure on Drugs

TABLE 2.15: DISTRIBUTION OF YOUNG ABUSERS BY ETHNICITY AND DAILY EXPENDITURE ON DRUG

Daily Expenditure (Ringgit)	Ethnicity					Total
	Malay	Chinese	Indian	Others (Citizen)	Others (Non-Citizen)	
Less than 1 - 5	2228 (38.07)	1104 (28.61)	511 (43.64)	47 (44.76)	27 (55.10)	3917 (35.49)
6 - 10	2305 (39.38)	1745 (45.22)	429 (36.64)	32 (30.48)	10 (20.41)	4521 (40.96)
11 - 15	510 (8.71)	372 (9.64)	94 (8.03)	12 (11.43)	1 (2.04)	989 (8.96)
16 and above	810 (13.84)	638 (16.53)	137 (11.70)	14 (13.33)	11 (22.45)	1610 (14.59)
Total	5853 (100.0)	3859 (100.0)	1171 (100.0)	105 (100.0)	49 (100.0)	11037* (100.00)

$$\chi^2 = 154.06 ; df = 12 ; P < 0.001$$

* 2079 (15.85%) cases have no information.

At the level of significance $p = 0.001$, it was found that relatively young Chinese abusers spent more money on drug daily as compared to the Malays and Indians. This finding was supported by the fact that more Chinese used heroin which is more expensive than other types of drug such as cannabis. For the young abusers of "Others" ethnicity, a larger proportion of them spent one to five ringgit daily while more of the "Others(non-citizen)" spent more than 16 ringgit daily.

g. Sources of drugs

At the level $p = 0.001$, there were no significant differences in the patterns of distribution of the young abusers of different ethnicity, as regard to the source of drugs except for categories "Friend" and "coffee-shops". A larger proportion of the Malays obtained their drugs from friends but less from the coffee-shops, while smaller proportion of the Indians and Chinese obtained their drugs from friend but more from the coffee-shops. When these findings were examined together with the findings on the reasons for drug use (Table 2.13), there is a contradiction where more Chinese and Indians use drug to get along with their friends but less of them obtained the supply from friends. Therefore, there might be a high possibility that the sources of drugs at the initial stage of drug use and at the state of continuous use are different.

For the young abusers of "Others (non-citizen)" ethnic group, a larger proportion obtained their drugs from friends while less from coffee-shops. This finding is supported by the earlier finding that the main reason for drug use for the young abusers of "Others (non-citizen)" ethnic group was to get along with their friends (Table 2.16).

TABLE 2.16: DISTRIBUTION OF YOUNG ABUSERS BY ETHNICITY AND SOURCE OF DRUGS

Source of Drugs	Ethnicity					Total	P Values	N*
	Malay	Chinese	Indian	Others (Citizen)	Others (Non-Citizen)			
Pusher (Addict)	3947 (61.78)**	2842 (62.68)	885 (65.46)	82 (62.60)	33 (58.93)	7789 (62.50)	> 0.1	12462
Friend	3242 (50.87)	1872 (41.45)	537 (39.87)	63 (47.37)	35 (62.50)	5749 (46.27)	< 0.001	12425
Pusher (Non-Addicts)	1005 (15.87)	647 (14.39)	176 (13.13)	23 (17.56)	13 (23.21)	1864 (15.08)	> 0.01	12357
Coffee Shops	141 (2.24)	180 (4.03)	66 (4.96)	4 (3.08)	1 (1.79)	392 (3.19)	< 0.001	12285
Others Shops	140 (2.22)	120 (2.69)	52 (3.91)	3 (2.31)	0 (0.00)	315 (2.56)	> 0.001	12285
Opium Den	42 (0.67)	39 (0.87)	14 (1.05)	0 (0.00)	0 (0.00)	95 (0.77)	> 0.1	12280
Others	368 (5.83)	346 (7.72)	171 (12.75)	8 (6.15)	8 (14.29)	901 (7.31)	< 0.001	12321

* Total number of cases responded with information on the respective category of source of drugs.

** The percentage in bracket indicates the proportion of the young abuser of the respective ethnicity with the source of drug concerned.

4.3 YOUNG STUDENT ABUSERS

In 1976, the Centre for Drug Research Universiti Sains Malaysia had conducted a study on 16,166 school children on the West Coast of Malaysia: States of Penang and Selangor, concerning the drug abuse problem in schools (Navaratnam and Spencer, 1976). The study has shown that 11.5% of the school children surveyed have had some experiences with the non-medical use of drugs and that a trend towards multiple drug use was becoming evident.

In 1978, a similar study among the school children on the East-Coast: state of Kelantan, was conducted. The survey reported 10.4% of students identified as "Drug users" who have had any experience of an illicit drug substance whether this use was experimental and short-lived, or was a regular habit.

About a decade later, in a comparative study of the psycho-social profile of drug using and non-drug using school children, Choo et. al. (1986) reported that 27% of the upper-secondary students surveyed were found using one or more substance (including tobacco and alcohol) while 3% reported the use of prescription or illegal drugs either on their own or in conjunction with alcohol and tobacco.

Recently, in the survey on health knowledge among the lower secondary students conducted by Hoo and Navaratnam (1988a), there was indication that 9.0% of the students surveyed have had at least experimented with harmful drugs (excluding tobacco and alcohol). In a similar survey among the trainee teachers from teacher training colleges and university, 3.6% of the trainee teachers surveyed learned to know about the effects of harmful drugs through their own experiences with these drugs, indicating their experimentation with drugs (Hoo and Navaratnam, 1988b).

So far, the methods of assessing the extent of drug abuse within the institutions for learning were scientific survey, which when properly constructed is the most accurate method available for making estimates of drug use. However, the present report make use of the statistical data collected by the NDAMS to gain insight into the background characteristics and nature of drug use of another group of young abusers, i.e those who were identified by institutions such as the police, prisons, and treatment agencies. Even though such statistics may not provide an accurate picture of drug use in the institutions for learning, however they provide a good way of examining the pattern of drug usage in the country, geographical variations in incidence, and changes over time for the young student abusers identified by the Reporting System. In addition, these statistics give a clearer picture of opiates and cannabis abuse than they do of the non-medical use of prescription drugs.

In order to gather an overall picture of drug abuse among the students in Malaysia based on the data collected by the NDAMS, the records for those drug dependents who were students at the time of identification during the years 1978 - 1987 were gathered for analysis purposes. The results of the analysis are presented in the first section of this chapter and should preferably be read in conjunction with the earlier monographs and research reports of the Centre for Drug Research since different types of young student abusers were captured by different methods of assessment.

4.3.1 SOCIO-DEMOGRAPHIC CHARACTERISTICS OF YOUNG STUDENT ABUSERS

Out of the total 13,185 records of the young abusers at the age of 21 years and below collected during the years 1978 - 1987, 12,954 of them were completed with the information on their status either as students or non-students. From these 12,954 records, 594 (4.6%) were students. This percentage represents the proportion of young abusers identified during the years 1978 - 1987 who were students at the time of identification.

These 594 records gathered and the socio-demographic characteristics of these student abusers were examined.

a. States of Identification

TABLE 3.1: DISTRIBUTION OF STUDENT ABUSERS BY STATE OF IDENTIFICATION

State	Frequency (n)	Percentage (%)
Kelantan	119	20.03
Perak	76	12.79
Federal Territory	74	12.45
Penang	62	10.44
Kedah	53	8.92
Trengganu	50	8.42
Pahang	44	7.41
Johore	33	5.56
Selangor	30	5.05
Negeri Sembilan	20	3.37
Malacca	20	3.37
Sarawak	7	1.18
Perlis	4	0.67
Sabah	2	0.34
Total	594	100.0

Among the 14 states of identification, the three major states from which student abusers were identified are Kelantan (20.03%), Perak (12.79%) and Federal Territory (12.45%). (Table 3.1)

According to the studies on the misuse of drugs among secondary school children in the states of Penang and Selangor (Navaratnam and Spencer, 1976) and in the state of Kelantan (Navaratnam, Spencer and Lee, 1978), the percentage of secondary school children involved in drug abuse for Penang is 13.4%, Selangor 10.5% and Kelantan 10.4% indicating the drug abuse problem among the school children was most serious for the state of Penang followed by Selangor and Kelantan. The number of students identified by the reporting agencies is too small to make any meaningful comparison between the states.

b. Year of Identification

TABLE 3.2 : DISTRIBUTION OF STUDENT ABUSERS BY YEAR OF IDENTIFICATION

Year of Identification	Frequency (n)	Percentage (%)
1978	87	14.65
1979	75	12.63
1980	49	8.25
1981	60	10.10
1982	80	13.47
1983	77	12.96
1984	42	7.07
1985	47	7.91
1986	46	7.74
1987	31	5.22
Total	594	100.00

Out of the ten years, 1978, 1979, 1982 and 1983 were the four years in which large proportion of the student abusers were identified. The National Anti-Dadah Campaign which was launched in 1982 and 1983 might have contributed to the slightly more detection of student abusers in 1982 and 1983.

According to the study conducted by the Centre for Drug Research on the secondary school children of Penang and Selangor (Navaratnam and Spencer, 1976), 11.5% of 16,166 school children surveyed have had some experience with the non-medical use of drugs. However, based on a study conducted in 1984 on the secondary school children in Penang, (Choo et al. 1986) reported that 3% of the students surveyed involved in the use of drugs (excluding tobacco and alcohol) indicating a significant decrease in the percentage of students involved in drugs (excluding tobacco and alcohol) between 1976 and 1984. These findings support the current findings based on the data collected by the NDAMS where there was a significant drop in the proportion of students captured from 1978 to 1987. The sudden increase in percentage of students reported in 1982 and 1983 might have been due to the launching of the National Anti-Dadah campaign as mentioned earlier.

c. Sex

Table 3.3 reveals that the majority (95.93%) of the student abusers were male, with the remaining 4.07% of them female.

TABLE 3.3: DISTRIBUTION OF STUDENT ABUSERS BY SEX

Sex	Frequency (n)	Percentage (%)
Male	566	95.93
Female	24	4.07
Total	590*	100.0

* 4 cases have no information on sex.

This result indicates that the drug abuse problem is mainly the problem for the male students. However, in the study by Navaratnam and Spencer (1976), the reported percentage of male student drug users was 70.13% while 29.87% for the females indicating a significantly larger proportion of female students were involved in drug use compared to the finding of the current study. The differences in the distribution of student drug users by sex may be explained by the characteristics of the group of young abusers identified by reporting agencies. The results on pattern of drug use among this group of student abusers (which will be discussed later) indicate that these abusers are more regular users of the hard drugs, such as heroin.

This means that the severity of drug use among these abusers is higher when compared to the findings on those groups from school studies. Thus, one can conclude that the male students are prone to become more serious users compared to the females.

d. Ethnicity

Majority (84.63%) of the student abusers were Malays. About one-tenth (9.63%) of them were Chinese and 4.05% were Indians. A very small proportion (1.69%) of these young student abusers were categorised under "Others" ethnic group. (Please refer to Table 3.4)

TABLE 3.4 : DISTRIBUTION OF STUDENT ABUSERS BY ETHNICITY

Ethnicity	Frequency (n)	Percentage (%)
Malay	501	84.63
Chinese	57	9.63
Indian	24	4.05
Others (Citizen)	8	1.35
Others (Non-Citizen)	2	0.34
Total	592*	100.0

* 2 cases have no information.

e. Level of Education Attained

Out of 594 records from the student abusers, only 29 records were complete with the information on the level of education attained. No concrete conclusion can be made from this small sample. However, there were indications that more than half (58.62%) of the student abusers attained upper secondary education while about a quarter (27.58%) attained lower secondary education (Please refer to Table 3.5).

TABLE 3.5: DISTRIBUTION OF STUDENT ABUSERS BY LEVEL OF EDUCATION ATTAINED

Level of Education Attained	Frequency (n)	Percentage (%)
None	0	0.00
Primary Education	2	6.90
Lower Secondary	8	27.58
Upper Secondary	17	58.62
College/University	2	6.90
Total	29*	100.00

* 565 cases have no information.

This is consistent with the findings of the study by Navaratnam and Spencer (1976), which show that the proportion of upper secondary students involved in drug use is larger than that of the lower secondary students.

f. Age at Time of Identification

Majority (81.65%) of the student abusers were arrested at the age of 15 to 19 years old as indicated in Table 3.6.

TABLE 3.6: DISTRIBUTION OF STUDENT ABUSERS BY AGE AT THE TIME OF IDENTIFICATION

Age at the Time of Identification (Years)	Frequency (n)	Percentage(%)
< 9	0	0.00
10 - 14	30	5.05
15 - 19	485	81.65
20 - 21	79	13.30
Total	594	100.00

This finding supports the earlier observation that majority of the student abusers have attained secondary education. Furthermore, since the student abusers were arrested at these ages, the finding reveals that the time period between 15 and 19 might be the period of late adolescence when the transformation of delinquency to criminal behaviour occurs.

Apart from this, 13.30% of the student abusers were identified at the age of 20 to 21 years while 5.05% were identified at the age of 10 to 14 years.

h. Criminality

The criminal records of these student abusers show that 14.88% of them were ever arrested, 6.48% were ever convicted and 3.85% were ever incarcerated (Table 3.7).

TABLE 3.7: DISTRIBUTION OF STUDENT ABUSER BY TYPE OF CRIMINAL RECORD

Type of Criminal Record	Frequency (n)	Percentage(%)
Ever Arrested	86	14.88
Ever Convicted	37	6.48
Ever Incarcerated	22	3.85

A more detailed study of the types of criminal offences committed reveals that the most common type of criminal offence committed by the student abusers was the possession of drugs (83.49%). Some 2.75% of them were involved in pushing drugs while a negligible proportion (0.92%) were involved in stealing, 12.84% of them were involved in criminal offences categorised as "Other Crimes". However, no further information about this group could be obtained due to the limitation in the manner by which the data were recorded by the agencies concerned (Please refer to Table 3.8).

TABLE 3.8 : DISTRIBUTION OF STUDENT ABUSERS BY TYPE OF CRIMINAL OFFENCE COMMITTED

Type of Criminal Offence	Frequency (n)	Percentage(%)
Possession of Drugs	182	83.49
Pushing Drugs	6	2.75
Stealing	2	0.92
Other Crimes	28	12.84
Total	218*	100.0

* 376 (63.30%) cases have no information on type of criminal offence committed.

4.3.2 OVERALL GENERAL PATTERNS OF DRUG USE FOR STUDENT ABUSERS

This section presents a description of the nature of drug use among this group of student abusers identified by the reporting agencies over 1978 through 1987.

a. Drugs Ever Abused

TABLE 3.9: DISTRIBUTION OF STUDENT ABUSERS BY TYPE OF DRUGS EVER ABUSED

Type of Drug Ever Abused	Frequency (n)	Percentage(%)
Tobacco	343	60.18*
Cannabis	311	54.85
Heroin	280	49.38
Sedative	62	10.99
Alcohol	53	9.41
Morphine	38	6.77
Opium	16	2.85
Tranquillizer	16	2.85
Mandrax Pill	8	1.43
Amphetamine	2	0.36
LSD	2	0.36

* Percentages may exceed 100% due to multiple reporting

Tobacco was the most common (60.18%) drug ever abused by the student abusers while cannabis (54.85%) and heroin (49.38%) were the two next common drugs. Other drug ever abused were sedatives (10.99%), alcohol (9.41%), morphine (6.77%), opium (2.85%) and tranquillizers (2.85%). Mandrax (1.43%), amphetamines (0.36%) and LSD (0.36%) were minor drugs ever abused by the student abusers.

Based on the findings of the study by Navaratnam and Spencer (1976), the most common drug ever abused by the upper secondary school children who were drug users was tobacco (74.46%) while cannabis (53.12%) and barbiturates/sedatives (38.88%) were the next two. Heroin was not found to be a common drug ever abused. 32.48% of those drug-using school children have ever abused heroin. A similar trend was found in the study on the upper secondary school children in the state of Kelantan in 1978 (Navaratnam, Spencer and Lee, 1978). Tobacco (72.22%) was the most common drug ever abused by the drug using school children in Kelantan while cannabis (47.78%) and tranquillizers (40.00%) were next. Heroin was ever abused by only 17.7% of the drug-using school children, indicating it is not a common drug ever abused.

In a later study on the drug using upper secondary school children in 1984 (Choo, et al, 1986), tranquillizers (including benzodiazepines) was reported as the most common drug (excluding tobacco and alcohol) ever abused by students. Some 31.4% had ever abused cannabis while 28.6% had ever abused sedatives/barbiturates. Heroin was not found to be a major drug ever abused, only 17.1% of them had ever abused heroin.

Based on the findings of current study and the earlier studies on the drug-using school children, heroin was not the most common drug ever abused. Other than tobacco which is a socially accepted drug in Malaysia, cannabis appeared to be the most common drug ever abused.

b. Drugs Abused at the Time of Identification

The pattern of drug abused at the time of identification is similar to that of drug ever abused with tobacco (54.80%) as the major drugs abused, followed by heroin (48.49%) and cannabis (39.64%). (Please refer to Table 3.10).

Other drugs abused at the time of identification were morphine (5.92%), sedatives (5.91%), alcohol (4.13%) opium (1.44%) and tranquillizers (1.62%).

Mandrax (1.08%), amphetamine (0.36%) and LSD (0.18%) were minor drugs abused at the time of identification among the student abusers.

TABLE 3.10: DISTRIBUTION OF STUDENT ABUSERS BY TYPE OF DRUGS ABUSED AT THE TIME OF IDENTIFICATION

Type of Drugs Abused at the Time of Identification	Frequency (n)	Percentage(%)
Tobacco	308	54.80
Heroin	273	48.49
Cannabis	222	39.64
Morphine	33	5.92
Sedatives	33	5.91
Alcohol	23	4.13
Tranquillizer	9	1.62
Opium	8	1.44
Mandrax	6	1.08
Amphetamine	2	0.36
LSD	1	0.18

Percentages may exceed 100% due to multiple reporting.

In the studies among the drug-using school children (Navaratnam and Spencer, 1976; Navaratnam, Spencer and Lee, 1978), heroin was not found as the major drug currently abused. Cannabis, other than tobacco, was the most common drug of abuse followed by sedatives/barbiturates and amphetamines/stimulants.

The difference in the type of drugs abused at the time of identification (or study) between the current study and the earlier studies is most probably due to the extensive detection by the NDAMS of more regular opiate and cannabis abusers and less of non-medical users of barbiturates, tranquillizers and amphetamines. Generally, the non-medical use of drugs indicated in the school studies are more of an experimental nature. In contrast the group identified by the agencies are more likely to be more regular users.

c. Age of Onset of Substance Use

More than three-quarters (77.50%) of the student abusers started their use of substance between 15 and 19 years of age while 18.72% of them started at the age of 10 to 14 years old. Apart from these, some (3.78%) started between 20 and 21 years old and none of them started before the age of 10 (Please refer to Table 3.11).

TABLE 3.11: DISTRIBUTION OF STUDENT ABUSER BY THE AGE OF ONSET OF SUBSTANCE USE

Age of Onset of Substance Use (Year)	Frequency (n)	Percentage(%)
< 9	0	0.00
10 - 14	99	18.72
15 - 19	410	77.50
20 - 21	20	3.78
Total	529*	100.00

* 65 (10.44%) cases have no information

The results indicate that 15 to 19 years old was the vulnerable time period of adolescence to initiate drug use.

In the study by Navaratnam and Spencer (1976), the age of onset of substance use were reported at the age of 15 to 17 years for the majority of the drug using school children. A similar finding was reported in the study on the school children on the East-Coast of Malaysia in 1978 (Navaratnam, Spencer and Lee, 1978). The majority of the students surveyed in 1984 initiated their drug use at the age of 16 to 18 years (Choo et al. 1986).

Findings on the age of onset of substance use from the various studies mentioned above and the present one reveal a consistent pattern.

d. Reasons for Drug Use

Several reasons were given by the student abusers for their drug use behaviours. Among the reasons given, "To get along with what my friends were doing" was most common (47.69%). 42.80% used drug "To get pleasure, feel good and get high" while about a quarter (25.88%) used drug out of "Curiosity". 8.41% of the student abusers used drugs to get away from their emotional problems while 5.24% were accidental. Only a very small proportion (0.94%) of them used drug to get away from their financial problems (Please refer to Table 3.12).

TABLE 3.12: DISTRIBUTION OF STUDENT ABUSERS
BY REASONS FOR DRUG USE

Reasons for Drug Use	Frequency (n)	Percentage(%)
To get along with what my friends were doing	258	47.69
To get pleasure, feel good, get high	229	42.80
Curiosity	139	25.88
To get away from my emotional problems	45	8.41
Accidental	28	5.24
To get away from my financial problems	5	0.94
Others	12	2.25

* Percentages may exceed 100% due to multiple reporting.

For the drug-using school children surveyed in 1976, their main reason for drug use was "Curiosity". The next two most common reason were "Friends (peer pressure)" and to "Forget problems" (Navaratanam and Spencer, 1976). However only a small proportion of these school children use drugs for pleasure. This is contrary to the current finding where "To get pleasure, feel good and get high" was one of the main reasons for drug use.

The main reasons for drug use for the drug-using school children on the East-Coast surveyed in 1978 were similar to that of the drug-using school children of Penang and Selangor in 1976 (Navaratnam, Spencer and Lee, 1978).

e. Duration of Drug Use

TABLE 3.13: DISTRIBUTION OF STUDENT ABUSERS
BY DURATION OF DRUG USE

Duration of Drug Use (Year)	Frequency (n)	Percentage(%)
< 1.0	346	67.84
1.1 - 2.0	100	19.61
2.1 - 4.0	59	11.57
4.1 - 4.0	5	0.98
Total	510*	100.00

* 84 (14.14%) cases have no information.

A large proportion (67.84%) of the student abusers used drug for less than a year while 19.61% for one to two years. 11.57% used drugs for two to four years while only a small proportion (0.98%) for more than four years. These findings indicate that the majority of these student abusers were most probably the more regular users and were drug dependent. Conversely, the study on the drug-using school children in 1984 by Choo et al., (1986), suggested that a large proportion of the subjects surveyed were experimenters and occasional single drug users (Table 3.13).

f. Daily Expenditure on Drugs

A large proportion (60.73%) of the student abusers spent one to five ringgit daily on drugs while about a quarter (25.71%) of them spent six to ten ringgit daily. 5.26% of them spent 11 to 15 ringgit while 8.30% spent 16 ringgit or more daily on drugs (Please refer to Table 3.14). This shows that a sizeable (13.56%) proportion of the student abusers were more severe users, who require an expenditure of more than 10 ringgit a day on drugs.

**TABLE 3.14 : DISTRIBUTION OF STUDENT ABUSER
BY DAILY EXPENDITURE ON DRUGS**

Daily Expenditure on Drugs(\$)	Frequency (n)	Percentage(%)
1 - 5	300	60.73
6 - 10	127	25.71
11 - 15	26	5.26
> 16	41	8.30
Total	494*	100.00

* 100 (16.84%) cases have no information.

g. Sources of Drugs

Among the reported sources from which the student abusers obtained their supply of drugs in Table 3.15, the most common one was "Friends" (58.44%) indicating that the negative peer influence among the student abusers was remarkable. Another common source of drugs was the pushers who were addicts themselves (47.87%). However, pushers who were not addicts themselves were not a common source of drugs for the student abusers (14.21%). A small proportion of the student abusers obtained their supply of drugs from coffee shops (1.98%) and shops other than coffee shops (3.42%). A negligible proportion (0.54%) of them obtained their supply from the opium den.

TABLE 3.15 : DISTRIBUTION OF STUDENT ABUSERS BY SOURCE OF DRUGS

Source of Drugs	Frequency (n)	Percentage(%)
Friends	329	58.44
Pusher (addict)	270	47.87
Pusher (non-addict)	79	14.21
Coffee-shop	11	1.98
Other shops	19	3.42
Opium den	3	0.54

* Percentage may exceed 100% due to multiple reporting.

4.3.3 THE COMPARISON OF SOCIO-DEMOGRAPHIC CHARACTERISTICS AND PATTERNS OF DRUG USE OF THE STUDENT AND NON-STUDENT ABUSERS

For the purpose of comparing the socio-demographic characteristics and the patterns of drug use of young student and non-student abusers, the records of the drug addicts/dependents at the age of 21 years old and below, identified by the reporting system during the years 1978 to 1987 were categorised according to their academic status, i.e. student or non-student status.

Out of the total of 13,185 records gathered over the years 1978 - 1987, 12,954 of them were completed with the information on their status either as student or non-student. From these 12,954 records, 594 (4.6%) were students and the remaining 12,360 (95.4%) were non-students.

SOCIO-DEMOGRAPHIC CHARACTERISTICS

a. State of Identification

At the level of significance $p = 0.001$, there were some differences in the distribution by state of identification between the student abusers and the non-student abusers. Relatively, larger proportions of the non-students were identified in the states of Penang, Selangor, Perak and Johore while larger proportions of the students were identified in the states of Pahang, Trengganu and Kelantan. The results indicate that the students from the states on the East-Coast: Pahang, Trengganu and Kelantan were more vulnerable to drug use as compared to the students from the West-Coast states. Another possible explanation for the phenomenon is that since the data presented in Table 3.16 were gathered from the NDAMS, the detection and arrest figures of these young abusers were heavily dependent on the national local drug enforcement policy, the manpower allocated within the force to drug investigations and different enforcement activity in the various strata of society and states of identification. These factors might have contributed to the differences in the distribution of non-student abusers and student abusers by state of identification.

b. Year of Identification

Over the decade, 1978 - 1987, as indicated in Table 3.17, a larger proportion of non-student abusers were identified in the year 1982, 1984 and 1985 as compared to the student abusers at the significant level $p = 0.002$. Relatively, more student abusers were identified in the year 1978.

TABLE 3.16: DISTRIBUTION OF YOUNG ABUSERS BY STATE OF IDENTIFICATION AND ACADEMIC STATUS

State of Identification	Young Abusers		
	Non-Student	Student	Total
Perlis	102 (0.83)	4 (0.67)	106 (0.82)
Kedah	909 (7.35)	53 (8.92)	962 (7.43)
Penang	2179 (17.63)	62 (10.44)	2241 (17.30)
Selangor	1047 (8.23)	30 (5.05)	1047 (8.08)
Perak	2260 (18.28)	76 (12.79)	2336 (18.03)
Federal Territory	1378 (11.15)	74 (12.45)	1452 (11.21)
Negeri Sembilan	561 (4.54)	20 (3.37)	437 (3.37)
Malacca	471 (3.37)	20 (3.37)	437 (3.37)
Johore	1629 (12.83)	33 (5.56)	1662 (12.83)
Pahang	590 (4.77)	44 (7.41)	634 (4.89)
Trengganu	554 (4.48)	50 (8.42)	604 (4.66)
Kelantan	601 (4.86)	119 (20.03)	720 (5.56)
Sabah	32 (0.26)	2 (0.34)	34 (0.26)
Sarawak	131 (1.06)	7 (1.18)	138 (1.07)
Total	12360 (100.0)	594 (100.0)	12954 (100.0)

$\chi^2 = 325.6$; $df = 13$; $p < 0.001$
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TABLE 3.17: DISTRIBUTION OF YOUNG ABUSERS BY YEARS OF IDENTIFICATION AND ACADEMIC STATUS

Year of Identification	Non-Student	Student	Total
1978	1237 (10.01)	87 (14.65)	1324 (10.22)
1979	1345 (10.88)	75 (12.63)	1420 (10.96)
1980	818 (6.62)	49 (8.25)	867 (6.69)
1981	1232 (9.97)	60 (10.10)	1292 (9.97)
1982	2001 (16.19)	80 (13.47)	2081 (16.06)
1983	1674 (13.54)	77 (12.96)	1751 (13.52)
1984	1367 (11.06)	42 (7.07)	1409 (10.88)
1985	1274 (10.31)	47 (7.91)	1321 (10.20)
1986	889 (7.19)	46 (7.74)	935 (7.22)
1987	523 (4.23)	31 (5.22)	554 (4.28)
Total	12360 (100.0)	594 (100.0)	12954 (100.0)

$\chi^2 = 31.5$; $df = 9$; $p < 0.002$

c. Sex

At the significant level $p = 0.01$, there was no difference in the distribution. Majority of the young abusers, either student or non-students, were males. Female young abusers made up a very small proportion relative to the total number of young abusers identified during the year 1978 to 1987.

TABLE 3.18: DISTRIBUTION OF YOUNG ABUSERS BY SEX AND ACADEMIC STATUS

Sex	Non-Student	Student	Total
Male	12032 (97.65)	566 (95.93)	12321 (95.4)
Female	289 (2.35)	24 (4.07)	590 (4.6)
Total	12598 (100.0)	313 (100.0)	12911* (100.0)

$$\chi^2 = 7.06 ; df = 1 ; p > 0.01$$

* 43 (0.33%) cases have no information on sex

d. Ethnicity

At the level of significance $p = 0.001$, the statistical result presented in Table 3.19 reveals that there were differences in the distribution of non-student abusers and student abusers by ethnicity. Relatively, a much larger proportion of the student abusers were Malays while a smaller proportions were Chinese or Indians. These results may indicate that the Malay students were more vulnerable to drug abuse as compared to the students of other ethnicities or that there is a difference in the enforcement activity in the various strata of society.

TABLE 3.19: DISTRIBUTION OF YOUNG ABUSERS BY ETHNICITY AND ACADEMIC STATUS

Ethnicity	Non-Student	Student	Total
Malay	6122 (49.78)	501 (84.63)	6623 (51.38)
Chinese	4626 (37.62)	57 (9.63)	4683 (36.33)
Indian	1362 (11.08)	24 (4.05)	1386 (10.75)
Others (Citizen)	128 (1.04)	8 (1.35)	136 (1.06)
Others (Non-Citizen)	59 (0.48)	2 (0.34)	61 (0.47)
Total	12297 (100.0)	592 (100.0)	12889* (100.0)

$$\chi^2 = 281.9; df = 8; p < 0.001$$

* 65 (0.50%) cases have information on ethnicity

e. Level of Educational Attainment

Out of a total of 12,954 records on the young abusers, only 3,361 (25.94%) records had information on the level of education attained by the identified young abusers. Based on these 3,361 records, the education level of the young abusers was examined and the results presented in Table 3.20.

Relatively, a larger proportion of the student abusers were in upper secondary schools when they were detected, while for the non-student abusers, a larger proportion of them had attained only a primary or lower secondary education.

TABLE 3.20 : DISTRIBUTION OF YOUNG ABUSERS BY LEVEL OF EDUCATION ATTAINED AND ACADEMIC STATUS

Education Level	Non-Student	Student	Total
None	140 (4.20)	-	140 (4.17)
Primary Education	1190 (35.71)	2 (6.90)	1192 (35.47)
Lower Secondary	1527 (45.83)	8 (27.59)	1535 (14.40)
Upper Secondary	467 (14.02)	17 (58.62)	484 (14.40)
College/ University	3 (0.09)	2 (6.90)	5 (0.15)
Others	5 (0.15)	-	5 (0.15)
Total	3332 (100.0)	29 (100.0)	3361* (100.0)

* 9593 (74.06%) cases have no information education attainment.

f. Age at the Time Of Identification

A glance at the data presented in Table 3.21 shows that, generally the non-student abusers were older than the student abusers at the time of identification. At the level $p = 0.01$, a larger proportion of the non-student abusers were 20 - 21 years old compared to the student abusers. At the time of identification, more than half (56.25%) of the non-student abusers were at the age of 20 to 21 years old while majority (81.65%) of the student abusers were at the age of 15 to 19 years old.

TABLE 3.21 : DISTRIBUTION OF YOUNG ABUSERS BY AGE AT THE TIME OF IDENTIFICATION AND ACADEMIC STATUS

Age at the Time of Identification	Non-Student	Student	Total
< 9 years	3 (0.02)	0 (0.0)	3 (0.02)
10 - 14 years	54 (0.44)	30 (5.05)	84 (0.65)
15 - 19 years	5350 (43.28)	485 (81.65)	5835 (45.04)
20 - 21 years	6953 (43.28)	79 (81.65)	7032 (54.28)
Total	12360 (100.0)	594 (100.0)	12954* (100.0)

$$\chi^2 = 577.827 ; df = 2 ; p < 0.01$$

* The value for χ^2 years on the categories "10-14 years", "15-19 years" and "20-21 years".

When the data in Table 3.21 were examined together with the data in Table 3.20, it is observed that most of the non-student abusers identified at the age of 15 to 21 years had attained lower secondary or primary education. These observations indicate that the majority of the non-student abusers were either the "drop-out" of the formal education after primary Standard Six or Lower Certificate Education. For the student abusers, data in Table 3.20 and Table 3.21 suggested that among the student abusers, students from Form III to Form V were most vulnerable to drug abuse since the majority (81.65%) of student abusers were at the age of 15 to 19 years old at the time of identification.

g. Marital Status

Based on the data presented in Table 3.22, a slightly larger proportion of non-student abusers were married as compared to the non-student abusers at the time of identification.

TABLE 3.22: DISTRIBUTION OF YOUNG ABUSERS BY MARITAL STATUS AND ACADEMIC STATUS

Marital Status	Non-Student	Student	Total
Single	10755 (95.89)	570 (99.65)	11325 (96.07)
Married	415 (3.70)	1 (0.17)	416 (3.53)
Divorced/ Separated	32 (0.29)	0 (0.00)	32 (0.27)
Widow/Widower	14 (0.12)	1 (0.17)	15 (0.13)
Total	11216 (100.0)	572 (100.0)	11788* (100.0)

* 1166(9.00%) cases have no information on marital status.

h. Criminality

At the level $p = 0.01$ a larger proportion of non-student abuser were ever arrested, ever convicted and ever incarcerated.

Further analysis on the criminality of these two groups of young abusers based on the records of criminal offence committed reveals that there were no differences in the categories "Possession of drug", "Stealing" and "Pushing drugs" among the student abusers (Refer to Table 3.24). However, there was indication that a larger proportion of student abusers were involved in the possession of drugs while a larger proportion of non-student abusers were involved in stealing and pushing drugs.

TABLE 3.23: DISTRIBUTION OF YOUNG ABUSERS BY TYPE OF CRIMINAL RECORD

Type of Criminal Record	Non-Student	Student	Total
Ever Arrested (N=12160*)	3571 (30.83)	86 (14.88)	3657 (30.07)
Ever Convicted (N=12093)	2134 (18.32)	37 (6.48)	2171 (17.95)
Ever Incarcerated (N=12081)	1715 (14.90)	22 (3.85)	1737 (14.38)

P < 0.01 < 0.01 < 0.01

* Total number of records on the respective type of criminal record.

TABLE 3.24: DISTRIBUTION OF YOUNG ABUSERS BY THE TYPES OF CRIMINAL OFFENCE COMMITTED AND ACADEMIC STATUS

Type of Criminal Offence Committed	Non-Student	Student	Total
Possession of Drug	5549 (76.63)	182 (83.49)	5731 (76.83)
Stealing	386 (5.33)	2 (3.92)	388 (5.20)
Pushing Drug	240 (3.31)	6 (2.75)	246 (3.30)
Robbing	108 (1.49)	0 (0.00)	108 (1.45)
Possession of Weapon	15 (0.20)	0 (0.00)	15 (0.20)
Other Crimes	943 (13.04)	28 (12.84)	971 (13.02)
Total	7241 (100.0)	218 (100.0)	7459 (100.0)

$$\chi^2 = 9.14^{**}; df = 2; p > 0.01$$

* 5495 (42.42%) cases have no information on the respective types of criminal offence committed.

** The value for χ^2 test on the categories "Possession of Drug", "Stealing" and "Pushing Drugs".

B. PATTERNS OF DRUG USE FOR THE NON-STUDENT ABUSERS AND THE STUDENT ABUSERS.

The general overall patterns of drug use for the young abusers were examined in Chapter 1 and the patterns of drug use for different ethnic groups in Malaysia in Chapter 2. The present section will examine and compare the patterns of drug use for the non-student abusers and the student abusers.

a. Drugs Ever Abused

Table 3.25 shows the distribution of the non-student and student abusers by drugs ever abused. There were some differences in the four major drugs ever abused by these two groups of abusers. The four major drugs ever abused by non-student abusers were heroin (77.98%), tobacco (57.07%), cannabis (31.80%) and alcohol (13.72%) while for the student abusers, the four major drugs ever abused were tobacco (60.18%), cannabis (54.85%), heroin (49.38%) and barbiturates (10.99%).

At the level of significance $p = 0.01$, a larger proportion of the non-student abusers have had ever abused alcohol and heroin while a larger proportion of the student abusers have had ever abused cannabis, barbiturates and tranquillizers.

TABLE 3.25: DISTRIBUTION OF YOUNG ABUSERS BY DRUGS EVER ABUSED AND ACADEMIC STATUS

Types of Drug Ever Abused	Non-Student	Student	Total	P value
Cigarettes (N=12674*)	6908 (57.07)	343 (60.18)	7251 (57.21)	P > 0.01
Alcohol (N=12554)	1645 (13.72)	53 (9.41)	1698 (13.53)	P < 0.01
Tranquillizer (N=12497)	105 (0.88)	16 (2.85)	121 (0.97)	P < 0.01
Sedative (N=12523)	736 (6.15)	62 (10.99)	798 (6.37)	P < 0.01
Mandrax (N=12499)	137 (1.15)	8 (1.43)	145 (1.16)	P > 0.01
Amphetamine (N=12497)	9 (0.08)	2 (0.36)	11 (0.09)	P > 0.01
LSD (N=12459)	27 (0.23)	2 (0.36)	29 (0.23)	P > 0.01
Cannabis (N=12592)	3824 (31.80)	311 (54.85)	4135 (32.84)	P < 0.01
Opium (N=12592)	567 (4.75)	16 (2.85)	583 (4.66)	P > 0.01
Morphine (N=12519)	830 (6.94)	38 (6.77)	868 (6.93)	P > 0.01
Heroin (N=12706)	9466 (77.98)	280 (49.38)	9746 (76.70)	P < 0.01

* Total number of records on the respective type of drugs ever abused.

b. Drugs Abused at the Time of Identification

For these two groups of young abusers, the three most commonly abused drugs at the time of identification were heroin, tobacco and cannabis (Table 3.26).

TABLE 3.26: DISTRIBUTION OF YOUNG ABUSERS BY DRUGS ABUSED AT THE TIME OF IDENTIFICATION AND ACADEMIC STATUS

Drugs Abused at the Time of Identification	Non-Student	Student	Total	P Value
Cigarettes (N=12398*)	6172 (57.07)	308 (54.80)	6480 (57.27)	P > 0.01
Alcohol (N=12269)	658 (13.72)	23 (4.13)	681 (5.55)	P < 0.01
Tranquillizer (N=12242)	56 (0.88)	9 (1.62)	65 (0.53)	P < 0.01
Sedative (N=12250)	306 (6.15)	33 (5.91)	339 (2.77)	P < 0.01
Mandrax (N=12242)	36 (1.15)	6 (1.08)	42 (0.34)	P > 0.01
Amphetamine (N=12242)	7 (0.08)	2 (0.36)	9 (0.07)	P > 0.01
LSD (N=12242)	13 (0.23)	1 (0.18)	14 (0.11)	P > 0.01
Cannabis (N=12281)	2043 (31.80)	222 (39.64)	2265 (18.44)	P > 0.01
Opium (N=12250)	282 (4.75)	8 (1.44)	290 (2.37)	P > 0.01
Morphine (N=12519)	701 (6.94)	33 (5.92)	734 (5.98)	P < 0.01
Heroin (N=12706)	9144 (77.98)	273 (48.49)	9417 (75.69)	P > 0.01
Others (N=858)	10 (1.2)	1 (2.5)	11 (1.2)	

* Total number of records on the respective types of drugs abused at the time of identification.

At the level of significance $p = 0.01$, a larger proportion of non-student abusers abused heroin while a larger proportion of student abusers were abusing cannabis, tranquilliser and barbiturates. Table 3.25 and Table 3.26 were compared and proportional tests comparing the proportions of young abusers who had ever abused and the proportions of them who were abusing at the time of identification by each drug type were conducted. At the significant level $p = 0.001$, it shows that for the drug type : cannabis and alcohol, the proportions of young abusers who had ever used these drugs (See Table 3.25) were much larger than those who were abusing them at the time of identification (Table 3.26). These results indicate that most probably cannabis and alcohol were the "transition drugs" for the young abusers, both students and non-students, before they advanced to the hard drugs such as heroin. Tobacco and heroin remained as the most common drugs abused at the time of identification indicating that these drugs were strongly addictive physically or psychologically.

c. Age of Onset of Substances Use

Table 3.27 shows the distribution of non-student and student abusers by age of onset of substance use. At the significant level $p = 0.01$, there were some differences in the age of onset of substance use for categories "10-14 years", "15-19 years" and "20-21 years" between the student abusers and non-student abusers. A larger proportion of student abusers started using drugs at the age of 10 - 14 years old while a smaller proportion of them started using drugs at the age of 20 to 21 years old. However, the proportions of student abusers and non-student abusers who initiated drug use at the age of 15 to 19 years were almost the same. These findings indicate that student abusers started their use slightly earlier than the non-student abusers.

TABLE 3.27 : DISTRIBUTION OF YOUNG ABUSERS BY AGE OF ONSET OF SUBSTANCE USE AND ACADEMIC STATUS

Age of Onset of Substance Use	Non-Student	Student	Total
< 9 years	5 (0.05)	-	5 (0.04)
10 - 14 years	459 (4.24)	99 (18.71)	558 (4.92)
15 - 19 years	8287 (76.60)	410 (77.50)	8697 (76.64)
20 - 21 years	2068 (19.11)	20 (3.78)	2088 (18.40)
Total	10819 (100.0)	529 (100.0)	11348* (100.0)

$$\chi^2 = 279.45^{**}; \quad df = 2; \quad p < 0.002$$

* 1696 (12.39%) cases have no information on age of onset.

** The value for χ^2 test on categories "10 - 14 years", "15 - 19" and "20 - 21 years".

d. Reasons for Drug Use

At the level of significance $p = 0.01$, a larger proportion of the non-student abusers abused drugs to get pleasure, to feel good and to get high, and to get along with what their friends were doing compared to the student abusers. The results suggest that the negative peer influence to use drugs among the non-student abusers were greater than that of the student abusers.

TABLE 3.28 : DISTRIBUTION OF YOUNG ABUSERS BY REASONS FOR DRUG USE AND ACADEMIC STATUS

Reasons for Drug Use	Non-Student	Student	Total	P Value
To get pleasure feed good, get high (N=11192*)	5247 (49.24)	229 (42.80)	5476 (48.93)	P < 0.01
To get along with what my friends were doing (N=11222)	6192 (57.97)	258 (47.69)	6450 (57.48)	P < 0.01
Curiosity (N=11158)	2963 (27.90)	139 (25.88)	3102 (27.80)	P > 0.01
Accidental (N=11086)	493 (4.67)	28 (5.24)	521 (4.70)	P > 0.01
To get away from my emotional problems (N=11000)	1016 (9.62)	45 (8.41)	1061 (9.56)	P > 0.01
To get away from my financial problems (N=11070)	137 (1.30)	5 (0.94)	142 (1.28)	P > 0.01
Others (N=11095)	636 (6.02)	12 (2.25)	648 (5.84)	P < 0.01

* Total number of records on the reasons for drug use.

c. Duration of Drug Use

At the level of significance $p = 0.01$, a larger proportion of the non-student abusers abused drugs for 1 to 2 years or 2 to 4 years while a smaller proportion of the student abusers abused drugs for shorter duration : less than 1 year. The results suggest that most of the young student abusers were experimenters of drugs while a larger number of the non-student abusers were dependent on drugs. These findings are supported by the study on a group of drug using school children in 1986 (Choo et al.) in which there were indications that the drug using school children used drugs on a purely experimental basis.

TABLE 3.29: DISTRIBUTION OF YOUNG ABUSERS BY DURATION OF DRUG USE AND ACADEMIC STATUS

Duration of Drug Use	Non-Student	Student	Total
< 1 year	5406 (50.78)	346 (67.84)	5752 (51.56)
1 - 2 years	2566 (24.10)	100 (19.61)	2666 (23.90)
2 - 4 years	2026 (19.03)	59 (11.57)	2085 (18.69)
4 - 6 years	516 (4.85)	5 (0.98)	521 (4.67)
6 - 10 years	116 (1.09)	0 (0.0)	116 (1.04)
10 - 15 years	14 (0.13)	0 (0.0)	14 (0.12)
15 + years	2 (0.02)	0 (0.0)	2 (0.02)
Total	10646 (100.0)	510 (100.0)	11156* (100.0)

$$\chi^2 = 68.0; \text{ df} = 6; p < 0.01$$

* 1798 (13.88%) cases has no information on duration of drug use.

f. Daily Expenditure on Drugs

Generally, the non-student abusers spent more on drugs compared to the student abusers. At the level of significance $p = 0.01$, relatively, a larger proportion (60.73%) of student abusers spent one to five ringgit a day while a larger proportion (65.76%) of non-student abusers spent more than five ringgit daily. The difference in the types of drugs abused and the monthly income of these two groups of young abusers may have contributed to this phenomenon. Relatively, a larger proportion

TABLE 3.30: DISTRIBUTION OF YOUNG ABUSERS BY DAILY EXPENDITURE ON DRUGS AND ACADEMIC STATUS

Daily Expenditure on Drug	Non-Student	Student	Total
\$1 - \$5	3595 (34.24)	300 (60.73)	3895 (35.43)
\$6 - \$10	4381 (41.73)	127 (25.71)	4508 (41.01)
\$11 - \$15	962 (9.16)	26 (5.26)	988 (8.99)
\$16 and more	1560 (14.86)	41 (8.30)	1601 (14.57)
Total	10498 (100.0)	494 (100.0)	10992* (100.0)

$\chi^2 = 144.8$; $df = 3$; $p < 0.01$

* 1962 (15.15%) cases have no information.

of the non-student abusers abused heroin (which is much more expensive than cannabis in Malaysia) while a larger proportion of the student abused cannabis. In addition, the non-student abusers generally had higher income than the student abusers (Table 3.30).

g. Sources of Drugs

At the significant level ($p = 0.01$) a larger proportion of student abusers obtained their supply from friends while a larger proportion of non-student abusers obtained from pushers who were addicts themselves (Table 3.31).

TABLE 3.31 : DISTRIBUTION OF YOUNG ABUSERS BY SOURCES OF DRUGS AND ACADEMIC STATUS

Source of Drugs	Non-Student	Student	Total	P Value
Friends (N=12318)*	5382 (45.75)	329 (58.44)	5711 (46.38)	$P < 0.01$
Pusher (Non-Addicts) (N=12262)	1784 (15.24)	79 (14.21)	1863 (15.19)	$P > 0.01$
Pusher (Addict) (N=12364)	7499 (63.55)	270 (47.87)	7769 (62.84)	$P > 0.01$
Coffee Shop (N=12190)	378 (3.25)	11 (1.98)	389 (3.19)	$P > 0.01$
Other Shop (N=12188)	293 (2.52)	19 (3.42)	312 (2.56)	$P > 0.01$
Opium Den (N=12185)	93 (0.80)	3 (0.54)	96 (0.79)	$P > 0.01$
Others (N=12226)	885 (7.58)	12 (2.16)	897 (7.34)	$P < 0.01$

* Total number of records on the respective source of drugs.

TABLE 3.32: DISTRIBUTION OF YOUNG ABUSERS BY REASONS FOR DISCONTINUANCE OF DRUG USE AND ACADEMIC STATUS

Reasons for Discontinuance of Drug Use	Non-Student	Student	Total	P Value
Increase in Price (N=4912)	218 (6.16)	11 (3.15)	292 (5.44)	P > 0.01
For Family (N=4927)	847 (18.51)	54 (15.38)	901 (18.29)	P > 0.01
Family (N=4920)	838 (18.34)	96 (27.35)	934 (18.98)	P < 0.01
Pressure of the law (N=4961)	2085 (45.28)	104 (29.63)	2189 (44.12)	P < 0.01
Shorten my life (N=4906)	318 (6.98)	16 (4.57)	334 (6.80)	P > 0.01
I was not aware (N=4909)	35 (0.77)	3 (0.86)	38 (0.77)	P > 0.01
Shortage of dadah (N=4909)	45 (0.99)	1 (0.29)	46 (0.94)	P > 0.01
Personal Reasons (N=4935)	1055 (23.02)	100 (28.41)	1155 (23.40)	P > 0.01
Others (N=4925)	276 (8.22)	39 (11.17)	415 (8.43)	P > 0.01

* Total number of records on the respective reason for discontinuance of drug use.

At the significance level $p < 0.01$, a larger proportion (45.28%) of non-students discontinued using drugs because of the pressure of the law while a larger proportion (27.35%) of students discontinued using because of family (Table 3.32). Other reasons reported for discontinuing drug use were for example, the increase in price of drugs, because drugs are life threatening, and unspecified personal reasons.

4.4 THE COMPARISON OF SOCIO-DEMOGRAPHIC CHARACTERISTICS AND PATTERNS OF DRUG USE OF THE YOUNG ABUSERS WITH ADDICTS OF OTHER AGE GROUPS

In the previous chapters, we have examined the socio-demographic characteristics and general pattern of drug use of the young abusers by ethnicity (Chapter 2), and by academic status of the abuser (Chapter 3). Taking the young abusers at the age of 21 years old and below identified in the years 1978 to 1987 as a group, the above comparative studies revealed the result of intra-group comparison of the young abusers by various factors discussed earlier.

In this chapter, the results of the inter-group comparative study will be presented. The socio-demographic characteristics and general pattern of drug use of the young abusers were compared with those at the age of 22 to 30 years old and those more than 30 years old. These two groups of abusers were gathered from the record of the NDAMS according to their ages at the time of identification. A total number of 31,481 records belonged to the abusers of 22 to 30 years old while 12,837 of the records belonged to those more than 30 years old.

4.4.1 SOCIO DEMOGRAPHIC CHARACTERISTICS

a. State of Identification

At the significance level $p = 0.01$, there were some differences in the distribution of drug abusers by state of identification between the abusers of different age groups. A larger proportion of the abusers identified in Penang and Perak were more than 30 years old while a large proportion of those identified in Federal Territory, Trengganu and Kelantan were at the age of 21 and below. On the other hand, a smaller proportion of the abusers identified in Johore were at the age of 21 and below.

TABLE 4.1: DISTRIBUTION OF DRUG ABUSERS BY STATE OF IDENTIFICATION AND AGE GROUPS

State of Identification	Age Group (Years)			Total
	< 21	22 - 30	> 30	
Perlis	106 (0.80)	457 (1.45)	325 (2.53)	888 (1.54)
Kedah	980 (7.43)	2055 (6.53)	977 (7.61)	4012 (7.0)
Penang	2257 (17.12)	5131 (16.30)	2750 (21.42)	10138 (17.63)
Perak	2396 (18.17)	5898 (18.74)	2881 (22.44)	11750 (19.43)
Selangor	1056 (8.01)	2765 (8.78)	1010 (8.34)	4831 (8.40)
Wilayah Persekutuan	1462 (11.09)	3583 (11.38)	1070 (8.34)	6115 (10.63)
Negeri Sembilan	587 (4.45)	1338 (4.25)	366 (2.85)	2291 (3.98)

TABLE 4.1 (CONTD.)

State of Identification	Age Group (Years)			Total
	< 21	22 - 30	> 31	
Malacca	456 (3.48)	1267 (4.02)	499 (3.89)	2222 (3.86)
Johor	1667 (12.64)	5415 (17.20)	1971 (15.35)	9053 (15.74)
Pahang	709 (5.38)	1305 (4.15)	382 (2.98)	2396 (4.17)
Trengganu	609 (4.62)	902 (2.87)	202 (1.57)	1713 (2.98)
Kelantan	728 (5.52)	975 (3.10)	216 (1.68)	1919 (3.34)
Sabah	34 (0.26)	92 (0.29)	71 (0.55)	197 (0.34)
Sarawak	138 (1.05)	298 (0.95)	117 (0.91)	553 (0.96)
Total	13185 (100.0)	31481 (100.0)	12837 (100.0)	57503 (100.0)

b. Year of Identification.

TABLE 4.2: DISTRIBUTION OF DRUG ABUSERS YEAR OF IDENTIFICATION AND AGE GROUPS

Year of Identification	Age Group (Years)			Total
	< 21	22 - 30	> 30	
1978	1332 (10.10)	1791 (5.69)	568 (4.42)	3491 (6.42)
1979	1429 (10.84)	2951 (9.37)	1129 (8.79)	5509 (9.58)
1980	868 (6.58)	2076 (6.59)	849 (6.61)	3793 (6.60)
1981	1313 (9.96)	3382 (10.74)	1277 (9.95)	5972 (10.39)
1982	2102 (15.94)	5808 (18.45)	2337 (18.21)	10247 (17.82)
1983	1785 (13.54)	4558 (14.48)	1834 (14.29)	8177 (14.22)
1984	1436 (10.89)	3445 (10.94)	1401 (10.91)	6282 (10.92)
1985	1395 (7.32)	3453 (10.97)	1417 (11.04)	6265 (10.92)
1986	965 (4.25)	2338 (7.43)	1172 (9.13)	853 (6.64)
1987	560 (22.90)	1679 (5.33)	853 (6.64)	3092 (5.38)
Total	1318 (100.0)	31481 (100.0)	12837 (100.0)	57503 (100.0)

Generally, no major difference was observed in the patterns of distribution over the years 1979 to 1986 for these three groups. However, a larger proportion of abusers at the age of 21 and below were identified in the years 1978 and 1987 was observed (Table 4.2).

c. Ethnicity

At the significance level $p = 0.01$, a larger proportion of the Malays were at the age of 21 and below while a smaller proportion of the Chinese and Indians were at the age of 21 and below compared to the other age groups. A much larger proportion of the Chinese were found to be more than 30 years old (Table 4.3).

TABLE 4.3: DISTRIBUTION OF DRUG ABUSERS BY ETHNICITY AND AGE GROUPS

Year of Identification	Age Group (Years)			Total
	< 21	22 - 30	> 30	
Malay	6751 (51.47)	15781 (50.35)	4672 (36.34)	27204 (47.52)
Chinese	4761 (36.30)	10810 (34.49)	5969 (46.69)	21540 (37.63)
Indian	1406 (10.72)	4174 (13.32)	1832 (14.33)	7412 (12.95)
Others (Citizen)	137 (1.04)	409 (1.30)	218 (1.71)	764 (1.33)
Others (Non-Citizen)	61 (0.47)	168 (0.54)	94 (0.74)	323 (0.56)
Total	13116 (100.0)	31342 (100.0)	12785 (100.0)	57243* (100.0)

$$\chi^2 = 890.55; \text{ df} = 8; p < 0.01$$

* 260 (0.45%) cases have no information.

d. Sex

Table 4.4 reveals that the majority of the drug abusers of all ages were males. However, at the significance level $p = 0.01$, a larger proportion of females were identified as drug abusers among those more than 30 years old.

TABLE 4.4: DISTRIBUTION OF DRUG ABUSERS BY SEX AND AGE GROUPS

Sex	Age Group (Years)			Total
	< 21	22 - 30	> 30	
Male	12819 (97.56)	30871 (98.32)	12334 (96.36)	56024 (97.70)
Female	321 (2.44)	529 (1.68)	466 (3.64)	1316 (2.30)
Total	13140 (100.0)	31400 (100.0)	12800 (100.0)	57340* (100.0)

$$\chi^2 = 156.79; \text{ df } = 2; p < 0.01$$

* 163 (0.28%) cases have no information.

e. Marital Status

Due to the fact that the marital status is closely related to the age of the drug abusers, there were great differences in the pattern of distribution of drug abusers of different age groups by marital status at the level of significance $p = 0.01$ (Please refer to Table 4.5).

TABLE 4.5: DISTRIBUTION OF DRUG ABUSERS BY MARITAL STATUS AND AGE GROUPS

Marital Status	Age Group (Years)			Total
	< 21	22 - 30	> 30	
Single	11478 (96.10)	22602 (77.68)	3915 (32.93)	37995 (71.79)
Married	419 (3.50)	6027 (20.71)	7191 (60.49)	13637 (25.76)
Divorced/ Separated	32 (0.27)	391 (1.34)	582 (4.90)	1005 (1.90)
Widowed	15 (0.13)	75 (0.26)	200 (1.68)	290 (0.55)
Total	11944 (100.0)	29095 (100.0)	11888 (100.0)	52927* (100.0)

$$\chi^2 = 12911.68; \text{ df } = 6; p > 0.01$$

* 4576 (7.96%) cases have no information.

Majority (96.10%) of the abusers at the age of 21 and below were single while more than 3 quarters (77.68%) of those between 22 and 30 years old were single. Only about one third (32.93%) of those more than 30 years old were single. Apart from this, a larger proportion of the abusers who were more than 30 years old were divorced/separated or widowed.

f. Level of Education Attained.

Table 4.6 presents the distribution of drug abusers of different age groups by the level of education attained.

At the significance level $p = 0.01$, a smaller proportion of the young abuser at the age of 21 years and below have no education or attained only primary education while a larger proportion have achieved lower secondary education when compared to the other two age groups. The existence of the relationship between age of the drug abusers and the level of education attained is most probably due to the way/method by which the young abusers were identified.

TABLE 4.6: DISTRIBUTION OF DRUG ABUSERS BY LEVEL OF EDUCATION ATTAINED AND AGE GROUPS

Level of Education Attained	Age Group (Years)			
	< 21	22 - 30	> 30	Total
None	142 (4.18)	547 (5.15)	544 (11.18)	1233 (6.53)
Primary	1200 (35.32)	4409 (41.50)	2892 (59.46)	8501 (45.02)
Lower Secondary	1556 (45.80)	3855 (36.29)	999 (20.54)	6410 (33.94)
College/University	5 (0.15)	56 (0.53)	20 (0.41)	81 (0.43)
Others	5 (0.15)	10 (0.09)	6 (0.12)	21 (0.11)
Total	3397 (100.0)	10623 (100.0)	4864 (100.0)	18884* (100.0)

$$\chi^2 = 1130.58; df = 10 ; p < 0.01$$

* 38619 (67.16%) cases have no information

g. Occupation

At the level of $p = 0.01$, there were some significant differences in the distribution of drug abusers by occupation between the abusers of different age groups. Most probably due to the young age, a smaller proportion of the young abusers at the age of 21

and below were found to be professionals and officials compared to the abusers of other age groups. Relatively, a larger proportion of the young abusers at the age of 21 and below were found to be students or unemployed while a smaller proportion were unskilled workers (Please refer to Table 4.7).

TABLE 4.7: DISTRIBUTION OF DRUG ABUSERS BY OCCUPATION AND AGE GROUPS

Occupation	Age Group (Years)			Total
	< 21	22 - 30	> 30	
Professional	50 (0.39)	278 (0.89)	120 (0.95)	448 (0.79)
Official Police Immigration Custom	50 (0.39)	293 (0.94)	64 (0.50)	407 (0.72)
Skilled Worker General Armed Forces, Navy, Air Forces; Narcotic	565 (0.39)	2231 (0.94)	614 (0.50)	3410 (0.72)
Semi-Skilled Worker Clerical Worker	157 (1.21)	817 (2.63)	171 (1.35)	1145 (2.02)
Unskilled Worker Labourer Shop Assistant	6165 (47.59)	16756 (53.94)	7041 (55.61)	29962 (52.86)
Student Primary/Secondary College/University	594 (4.58)	92 (0.30)	3 (0.02)	689 (1.21)
Others	1339 (10.34)	3922 (12.63)	2048 (16.78)	7309 (12.90)
Unemployed	4034 (31.14)	6675 (21.49)	2599 (20.53)	12660 (23.48)
Total	12954 (100.0)	31064 (100.0)	12260 (100.0)	56678* (100.0)

* 825 (1.43%) cases have no information.

h. Monthly Income

The type of occupation that the abusers have is correlated to their monthly income. Data in Table 4.8 indicate that at the level of significance $p = 0.01$ the monthly income of the more elderly (those more than 21 years old) have higher income than the young abusers due to the type of occupation they have.

TABLE 4.8: DISTRIBUTION OF DRUG ABUSERS BY MONTHLY INCOME AND AGE GROUPS

Monthly Income (Ringgit)	Age Group			Total
	< 21	22 - 30	> 30	
< 250	2460 (32.49)	4437 (19.36)	1617 (17.10)	8514 (21.32)
251 - 350	2546 (33.63)	6793 (29.64)	2510 (26.55)	11849 (29.66)
351 - 600	2146 (28.34)	9129 (39.83)	3801 (40.21)	15076 (37.74)
601 - 1000	372 (4.91)	2180 (9.52)	1254 (13.26)	3806 (9.53)
> 1000	48 (0.63)	379 (0.63)	272 (2.88)	699 (1.75)
Total	7572 (100.0)	22918 (100.0)	9454 (100.0)	39944* (100.0)

$$\chi^2 = 1284.73; df = 8 ; p < 0.01$$

* 17559 (30.54%) cases have no information

i. Daily Expenditure On Drug

At the significance level $p = 0.01$, the young abusers at the age of 21 and below were found to spend less on drugs as compared to the abusers of the other two age groups. This may be due to the fact that the young abusers were not chronic users. The lower ability of the young abusers to spend on drugs might have also contributed to the above observation.

TABLE 4.9: DISTRIBUTION OF DRUG ABUSERS DAILY EXPENDITURE ON DRUGS AND AGE GROUPS

Daily Expenditure (Ringgit)	Age Group			Total
	< 21	22 - 30	> 30	
1 - 5	3932 (35.43)	6061 (22.04)	2717 (25.52)	12710 (25.81)
6 - 10	4552 (41.02)	11504 (41.83)	4274 (40.14)	20330 (41.28)
11 - 15	997 (8.99)	3687 (13.41)	1362 (12.79)	6046 (12.28)
> 16	1616 (14.56)	6247 (22.72)	2295 (21.55)	10158 (20.63)
Total	11097 (100.0)	27499 (100.0)	10648 (100.0)	49244* (100.0)

$$\chi^2 = 944.88; df = 6 ; p < 0.01$$

* 8,259 (14.36%) cases have no information

j. Criminality

Based on the criminal record of the abusers of the three age groups, this section reports the results of the comparative study on the criminality between these three groups.

TABLE 4.10: DISTRIBUTION OF DRUG ABUSERS BY CRIMINAL RECORD AND AGE GROUPS

Criminal Record	Age Group			P.Value
	< 21	22 - 30	> 30	
Ever Arrested (N=21782)*	3685 (30.05)	12451 (43.28)	5646 (49.06)	P < 0.001
Ever Convicted (N=16995)*	2190 (17.96)	9842 (34.36)	4963 (43.22)	P < 0.001
Ever Imprisoned (N=15710)*	1750 (14.36)	9299 (32.51)	4661 (40.66)	P < 0.001

* Total Number

At the level $p = 0.001$ a much larger proportion of the young abusers at the age of 21 and below were ever arrested while much smaller proportion were ever convicted and ever imprisoned. The results indicate that the criminal record for the young abusers were not as serious as the more elderly ones.

The most common type of criminal offence committed by the abusers - irrespective of age groups was "possession of drugs" (Table 4.11). However, there were some differences in the types of criminal offences committed between the different age groups. A slightly larger proportion of the young abusers at the age of 21 and below were involved in stealing and robbing while a smaller proportion were involved in pushing drugs.

TABLE 4.11: DISTRIBUTION OF DRUG ABUSERS BY TYPES OF CRIMINAL OFFENCE COMMITTED AND AGE GROUPS

Type of Criminal Offence	Age Group (Years)			Total
	< 21	22 - 30	> 30	
Possession of Drugs	5804 (76.81)	14812 (75.94)	6931 (77.04)	27547 (76.40)
Pushing Drugs	257 (3.41)	843 (4.33)	844 (9.38)	1944 (5.39)
Stealing	393 (5.20)	982 (5.03)	229 (2.55)	1604 (4.45)
Robbing	109 (1.44)	145 (0.74)	29 (0.32)	283 (0.78)
Possession of Weapon	15 (0.20)	31 (0.16)	10 (0.11)	56 (0.16)
Other Crimes	978 (12.94)	2691 (13.82)	954 (10.60)	4623 (12.82)
Total	7556 (100.0)	19504 (100.0)	8997 (100.0)	36057* (100.0)

* 21446 (37.30%) cases have no information.

4.4.2 GENERAL PATTERN OF DRUG USE

This section attempts to examine the general pattern of drug use for the young abusers of 21 years old and below in comparison to the abusers of 22 to 30 years old and those more than 30 years old.

a. Drugs Ever Used

At the significance level $p = 0.001$, a larger proportion of the young abusers at the age of 21 and below were found to have ever used cannabis while a smaller proportion have ever used alcohol and opium compared to the abusers more than 21 years old. When compared to the abusers between 22 and 30 years old, a smaller proportion of the young abusers at the age of 21 and below were found to have ever used heroin. However, when compared to the

more elderly abusers who were more than 30 years old, a larger proportion of them have ever used heroin (Please refer to Table 4.12).

TABLE 4.12: DISTRIBUTION OF DRUG ABUSERS BY TYPE OF DRUGS EVER USED AND AGE GROUPS

Drugs Ever Used	Age Group (Years)			P Value
	< 21	22 - 30	> 30	
Cigarettes (N=55864*)	7303 (56.85)	17482 (56.88)	6407 (52.16)	P < 0.001
Alcohol (N=55324)	1711 (13.45)	5907 (19.42)	2376 (19.49)	P < 0.001
Tranquillizer (N=54925)	121 (0.96)	352 (1.17)	95 (0.79)	P < 0.001
Sedative (N=55057)	802 (6.32)	2169 (7.17)	516 (4.27)	P < 0.001
Mandrax (N=54941)	145 (1.14)	647 (2.14)	141 (1.17)	P < 0.001
Amphetamine (N=54916)	11 (0.09)	72 (0.24)	15 (0.12)	P < 0.001
LSD (N=54923)	29 (0.23)	136 (0.45)	45 (0.37)	P > 0.001
Cannabis (N=55380)	4176 (32.72)	8472 (27.81)	2588 (21.29)	P < 0.001
Opium (N=55096)	591 (4.66)	2586 (8.54)	2822 (23.02)	P < 0.001
Morphine (N=55030)	883 (6.96)	2721 (8.99)	1032 (8.54)	P < 0.001
Heroin (N=55999)	9841 (76.41)	25969 (84.24)	8787 (71.47)	P < 0.001
Others (N=54925)	126 (0.99)	206 (0.68)	55 (0.46)	P < 0.001

* Total number with information on the respective type of drug ever used.

b. Drugs Used at the Time of Identification

TABLE 4.13: DISTRIBUTION OF DRUG ABUSERS BY TYPE OF DRUG USED AT THE TIME OF IDENTIFICATION AND AGE GROUPS

Drugs Ever Used	Age Group (Years)			P Value
	< 21	22 - 30	> 30	
Cigarettes (N=55172*)	6524 (51.93)	15887 (52.2)	5929 (48.8)	P < 0.001
Alcohol (N=54464)	688 (5.53)	2382 (7.93)	1055 (8.80)	P < 0.001
Tranquillizer (N=54279)	65 (0.52)	134 (0.45)	40 (0.34)	P > 0.001
Sedative (N=54320)	342 (2.76)	771 (2.57)	215 (4.27)	P < 0.001
Mandrax (N=54282)	42 (0.34)	86 (0.29)	16 (0.13)	P > 0.001
Amphetamine (N=54279)	9 (0.07)	13 (0.04)	5 (0.04)	P > 0.001
LSD (N=54279)	14 (0.11)	20 (0.07)	9 (0.08)	P > 0.001
Cannabis (N=54455)	2289 (18.39)	3530 (11.75)	1211 (10.11)	P < 0.001
Opium (N=54377)	297 (2.39)	1160 (3.87)	2081 (17.04)	P < 0.001
Morphine (N=54372)	743 (5.97)	2016 (6.72)	770 (6.45)	P > 0.001
Heroin (N=55312)	9496 (75.31)	25299 (82.81)	8513 (70.06)	P < 0.001
Others (N=37622)	112 (1.29)	216 (1.04)	55 (0.67)	P < 0.001

* Total number of cases with information on the respective type of drug used at the time of identification

At the level of significance $p = 0.001$, relatively a larger proportion of young abusers of 21 years and below were using cannabis while a smaller proportion were using alcohol and opium at the time of identification. For the use of heroin, similar pattern was found as for the drug ever used (Table 4.13).

c. Reasons for Drug Use

TABLE 4.14: DISTRIBUTION OF DRUG ABUSERS BY REASONS FOR DRUG USE AND AGE GROUPS

Reasons for Drug Used	Age Group (Years)			P Value
	< 21	22 - 30	> 30	
To get pleasure feel good, get high (N=49077*)	5827 (46.29)	13658 (50.32)	4942 (46.58)	$P < 0.001$
To get along with what my friends were doing (N=49128)	1873 (15.09)	15084 (55.51)	5141 (48.51)	$P < 0.001$
Curiosity (N=48801)	7820 (62.47)	7446 (27.59)	2227 (21.16)	$P < 0.001$
Accidental (N=48471)	392 (3.18)	1405 (5.24)	608 (5.81)	$P < 0.001$
To get away from my emotional problem (N=48602)	316 (2.56)	3867 (14.40)	1819 (17.31)	$P < 0.001$
To get away from my financial problem (N=48403)	96 (0.78)	507 (1.90)	345 (3.30)	$P < 0.001$
Others (N=48594)	902 (7.29)	2017 (7.51)	1528 (14.52)	$P < 0.001$

* Total number of cases with information on the respective reason for drug use.

At the level of significance $p = 0.001$, a much larger proportion of the young abusers at the age of 21 and below used drugs because of curiosity while a much smaller proportion did so to

get along with what their friends were doing compared to the abusers between 22 and 30 years old and those more than 30 years old. This observation is contrary to the belief that the major reason for initiating drug use among the young abuser was because of peer pressure. The present observation indicates that "peer pressure" for initiation of drug use among the drug abusers more than 21 years old were much stronger than that for the young abusers at the age of 21 and below. Apart from these, a smaller proportion of the young abusers used drugs to get away from their emotional and financial problems.

d. Age of Onset of Substance Use.

TABLE 4.15: DISTRIBUTION OF DRUG ABUSERS BY AGE OF ONSET AND AGE GROUPS

Age On Onset (Years)	Age Group (Years)			Total
	< 21	22 - 30	> 30	
< 9	5 (0.04)	7 (0.02)	1 (0.01)	13 (0.03)
10 - 14	562 (4.88)	374 (1.32)	69 (0.63)	1005 (1.98)
15 - 19	8808 (76.49)	4765 (16.87)	467 (4.24)	14040 (27.65)
20 - 24	2140 (18.59)	15815 (56.01)	1304 (11.83)	19259 (37.92)
25 - 29	-	7105 (25.16)	2719 (24.68)	9834 (19.36)
30 - 34	-	165 (0.58)	3781 (34.31)	3947 (7.77)
35 - 39	-	-	1369 (12.42)	1369 (2.70)
40 and above	-	3 (0.1)	1309 (11.89)	1312 (2.58)
Total	11515 (100.0)	28238 (100.0)	11019 (100.0)	50772 (100.0)

Data recorded in Table 4.15 reveal that the age of onset for the three groups were different. For those at the age of 21 and below, the majority of them started using drugs at the age 15 - 19 years old while a majority of those between 22 and 30 years of age started using drugs at the age 20 - 24 years. For the most elderly group, majority of them started using drugs in their late twenties or early thirties.

e. Duration of Drug Use

Due to the fact that the duration of drug use is related to the age of drug users, there were great differences in the distribution of the drug abusers of different age groups by duration of drug use at the level of significance $p = 0.001$. Relatively, larger proportion of the young abusers at the age of 21 years old and below used drugs for less than a year or one to two years. For the abusers between 22 and 30 years old, relatively larger proportion of them used drugs for 2 to 4 years while for those more than 30 years old, larger proportion of them used drugs for 6 to 10 years or 10 to 15 years (Please refer to Table 4.16).

TABLE 4.16: DISTRIBUTION OF DRUG ABUSERS BY DURATION OF DRUG USE AND AGE GROUPS

Duration of Drug Use (Years)	Age Group (Years)			Total
	< 21	22 - 30	> 30	
< 1	5827 (51.70)	7548 (27.15)	1768 (16.42)	15143 (30.38)
1.1 - 2.0	2690 (23.87)	5764 (20.73)	1408 (13.08)	9862 (19.79)
2.1 - 4.0	2099 (18.62)	7069 (25.43)	2092 (19.43)	11260 (22.59)
4.1 - 6.0	522 (4.63)	3768 (13.55)	1459 (13.55)	5749 (11.54)
6.1 - 10.0	116 (1.03)	2974 (10.70)	1777 (16.51)	4867 (9.77)
10.1 - 15.0	14 (0.13)	631 (2.27)	923 (8.58)	1568 (3.15)
> - 15	2 (0.02)	48 (0.17)	1338 (12.43)	1388 (2.79)
Total	11270 (100.0)	27802 (100.0)	10765 (100.0)	49837* (100.0)

$$\chi^2 = 11046.64; df = 12; p < 0.001$$

* 7666 (13.33%) cases have no information

f. Sources of Drug

A larger proportion of the young abusers of age 21 and below obtained their supply of drugs from friends while a smaller proportion obtained from the drug pushers who were non-addict or from coffee shops compared to the abusers from the other two age groups. Larger proportion of the more elderly abusers (those more than 30 years old) obtained their supplies from the drug pushers (non-addict), coffee shops and opium den while smaller proportion of them obtained from friends. For the abusers between 22 and 30 years old, larger proportion obtained their drugs from the pushers who were addicts.

g. Reason for Discontinuance of Drug Use

At the level of significance $p = 0.001$, a larger proportion of young abusers at the age of 21 and below stopped using drugs because of "the shortage of drugs" and "drugs could shorten their life span". However, for the abusers who were more than 21 years old, a larger proportion of them stopped using drugs because of familial reasons, family's request or pressure of the law and enforcement (Table 4.18).

TABLE 4.17: DISTRIBUTION OF DRUG ABUSERS BY SOURCES OF DRUGS AND AGE GROUPS

Sources of Drugs	Age Group (Years)			P Value
	< 21	22 - 30	> 30	
Friends (N=53620*)	5777 (46.29)	12555 (42.69)	4248 (36.23)	$P < 0.001$
Pushers (Non-Addict) (N=53349)	1873 (15.09)	5230 (17.88)	2445 (20.93)	$P < 0.001$
Pushers (Addict) (N=53870)	7820 (62.47)	19765 (66.85)	7227 (61.32)	$P < 0.001$
Coffee Shops (N=53017)	392 (3.18)	1206 (3.15)	630 (5.43)	$P < 0.001$
Others Shops (N=52965)	316 (2.56)	876 (3.02)	417 (3.60)	$P < 0.001$
Opium Den (N=52946)	96 (0.78)	393 (1.35)	670 (5.78)	$P < 0.001$
Others (N=53183)	902 (7.29)	2747 (9.42)	1371 (11.77)	$P < 0.001$

* Total number of cases with information on the respective categories of source of drugs.

TABLE 4.18: DISTRIBUTION OF DRUG ABUSERS BY REASON FOR DISCONTINUANCE OF DRUG USE AND AGE GROUPS

Reasons for Discontinuance of Drug Use	Age Group (Years)			P Value
	< 21	22 - 30	> 30	
Increase in price (N=17890*)	1332 (10.10)	802 (8.04)	346 (11.72)	$P < 0.001$
For family reasons (N=17941)	1429 (10.84)	2213 (22.14)	823 (27.76)	$P < 0.001$
Family ask to stop (N=17904)	868 (6.58)	1701 (17.05)	473 (16.01)	$P > 0.001$
Pressure of the law (N=18086)	1313 (0.96)	4360 (43.22)	1243 (41.64)	$P > 0.001$
Shorten my life span (N=17879)	2102 (15.94)	702 (7.04)	170 (5.77)	$P > 0.001$
Did not know (N=17867)	1785 (13.54)	61 (0.61)	19 (0.65)	$P > 0.001$
Shortage of drugs (N=17867)	1436 (10.89)	108 (1.08)	70 (2.38)	$P < 0.001$
Personal reasons (N=17961)	1395 (10.58)	2545 (25.40)	652 (22.05)	$P < 0.001$
Others (N=17905)	965 (7.32)	685 (6.86)	146 (4.95)	$P < 0.001$

* Total number of cases with information on the respective category of reason for discontinuance of drug use.

4.5 TREND STUDY ON THE SOCIO-DEMOGRAPHIC CHARACTERISTICS AND PATTERN OF DRUG USE FOR THE YOUNG ABUSERS IDENTIFIED OVER THE YEARS 1978 TO 1987.

In this chapter, the results of the study on the trends of drug use and the selected socio-demographic characteristics for the young abusers at the age of 21 years and below over the years 1978 to 1987 will be reported.

Based on the percentage of young abusers, the trends on selected socio-demographic characteristics were examined by the state of identification, ethnicity, sex, marital status, occupation, monthly income, level of education and criminality. The trends on the general pattern of drugs use were examined by the type of drugs ever abused, the type of drug abused at the time of identification, age of onset of drug use, reason for drug use, duration of drug use, daily expenditure on drugs, source of drugs and reason for discontinuing drug use.

Each of the trends in percentage of young abusers by the selected socio-demographic characteristics and the general pattern of drug use is presented graphically in the form of a line graph.

4.5.1 TRENDS IN PERCENTAGE OF YOUNG ABUSERS BY SOCIO-DEMOGRAPHIC CHARACTERISTICS OVER 1978 - 1987.

a. State of Identification

Due to the large number of states of identification, the trends in percentage of young abusers by state of identification are presented in five separate figures: Figure 1.1; 1.2; 1.3; 1.4 and 1.5.

Generally, there is a decreasing trend in the percentage of young abuser for Penang and the Federal Territory. However for the states of identification Pahang, Perak, and Kedah there is a slight increasing trend in the percentage of young abuser. For the states of Perlis, Negeri Sembilan, Malacca, Sabah and Sarawak, the percentage of young abusers identified were quite stable over the years 1978 - 1987.

For the state of Selangor, there is a steep increase in the trend from 1981 to 1983 with a peak in 1982 followed by a low depression in 1986. The trend indicate larger proportions of young abusers were identified in 1981 to 1983 in Selangor. The trend for the state of Trengganu is similar to a solenoid with the lowest peak in 1980 and the highest peak in 1984. The trends for the states: Johore and Kelantan are irregular.

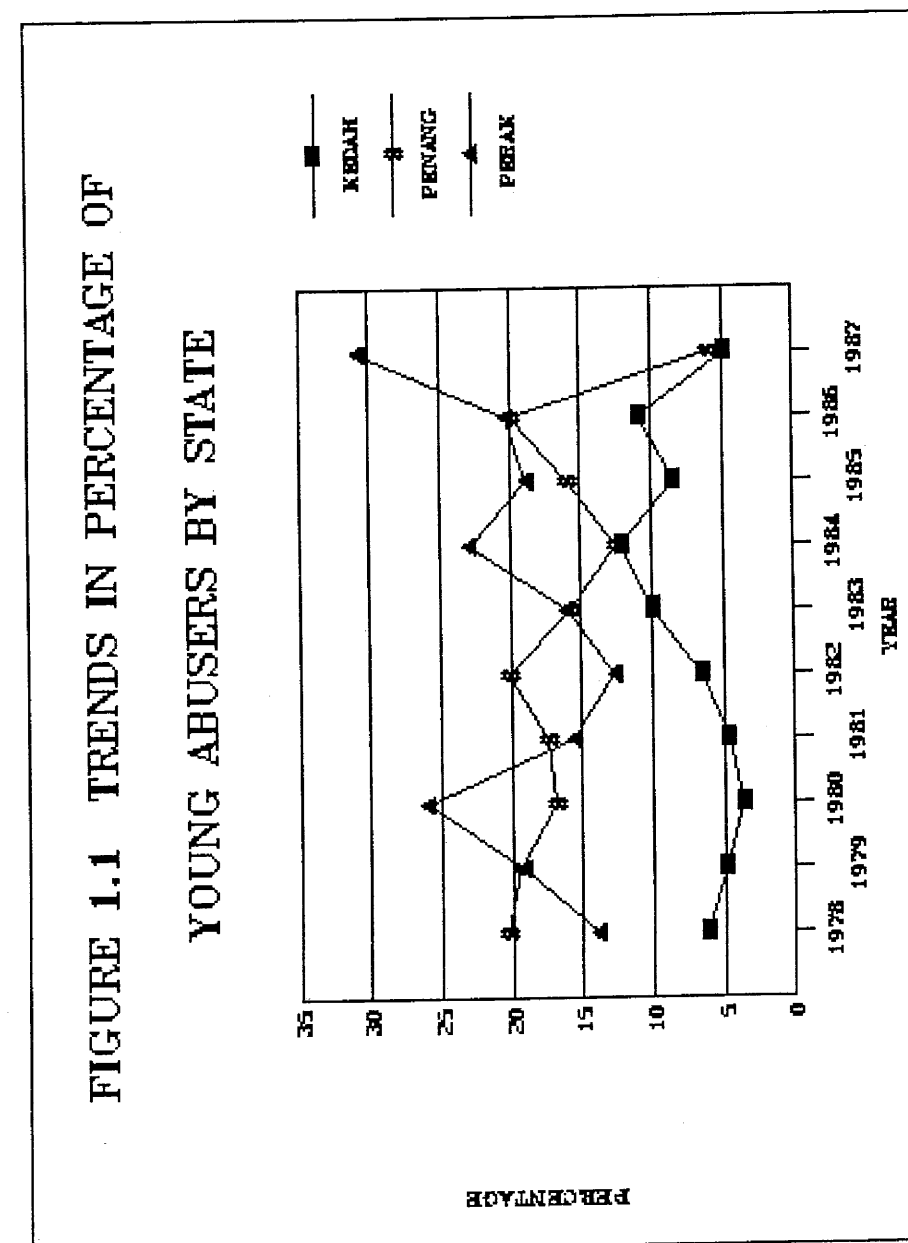


FIGURE 1.2 TRENDS IN PERCENTAGE OF
YOUNG ABUSERS BY STATE

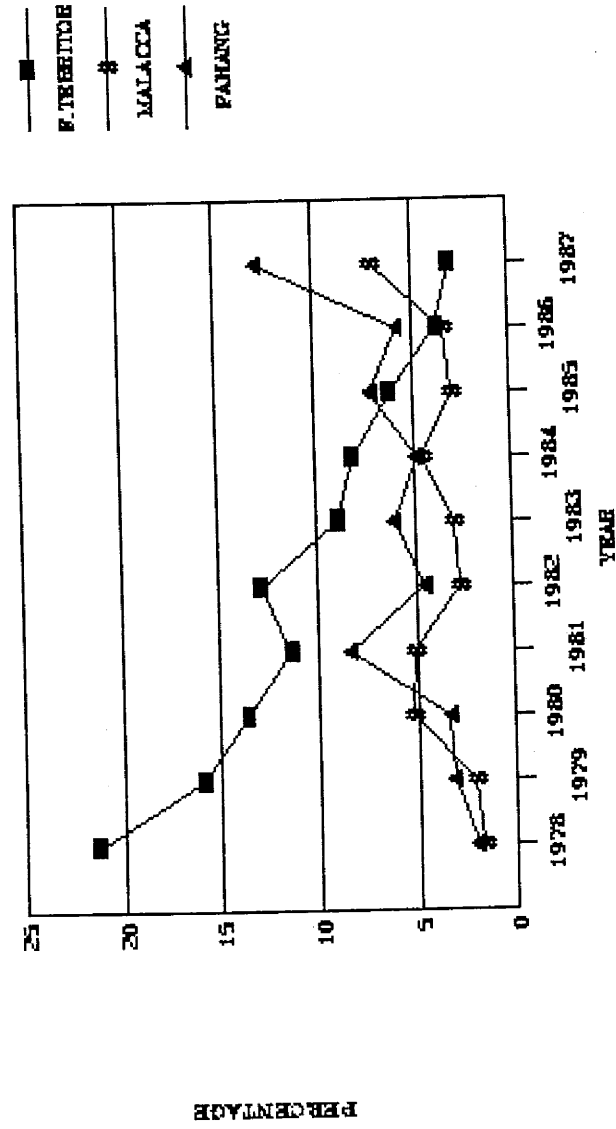


FIGURE 1.3 TRENDS IN PERCENTAGE OF
YOUNG ABUSERS BY STATE

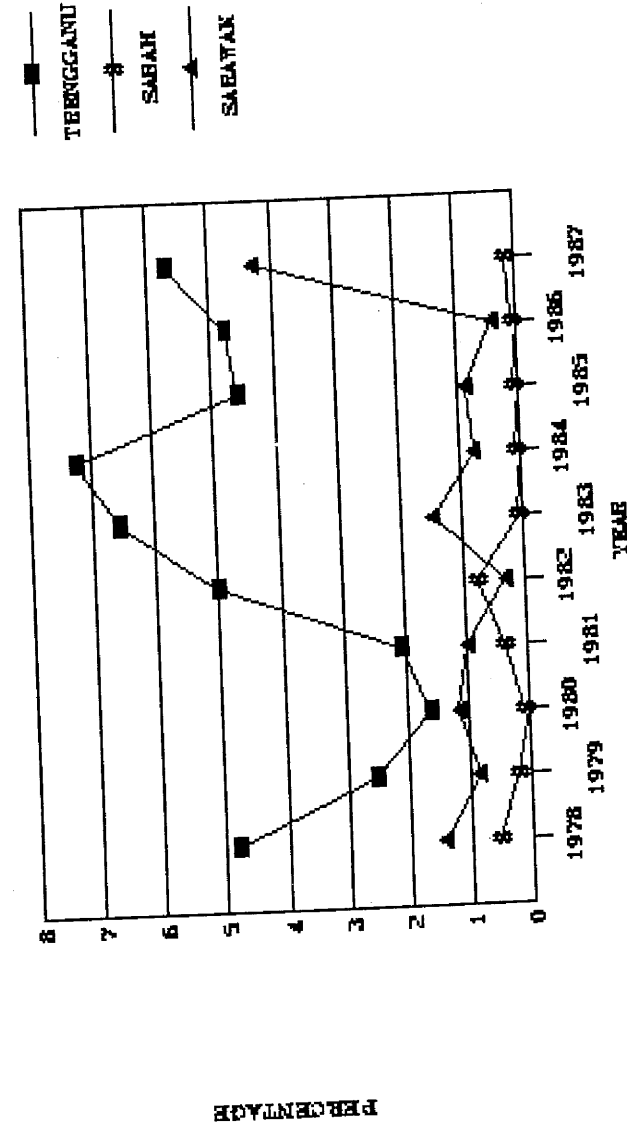


FIGURE 1.4 TRENDS IN PERCENTAGE OF

YOUNG ABUSERS BY STATE

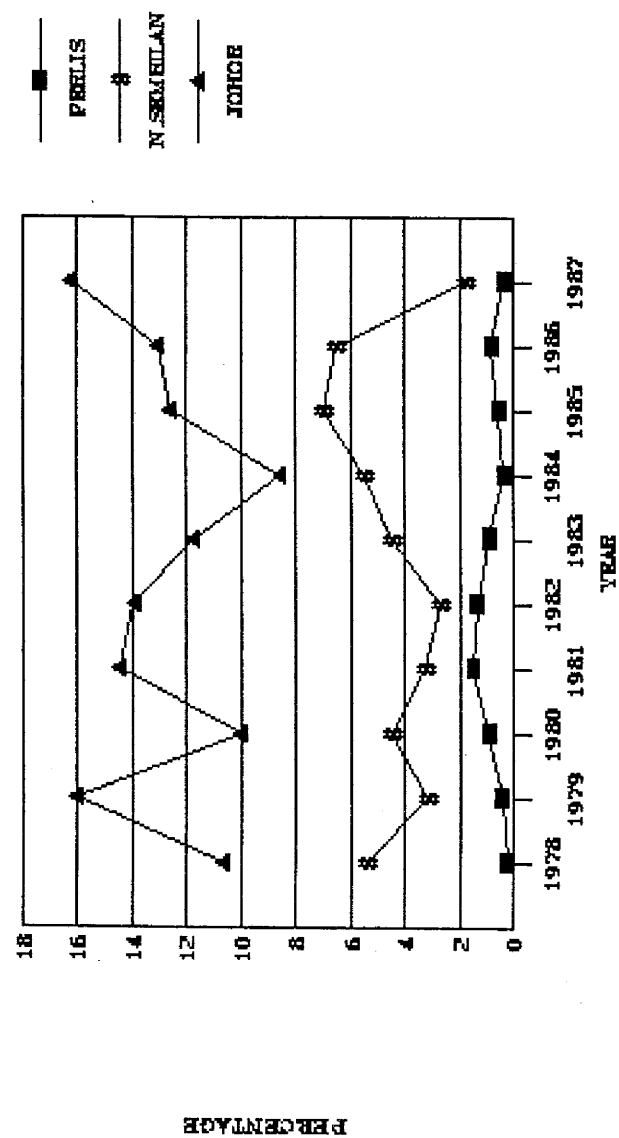
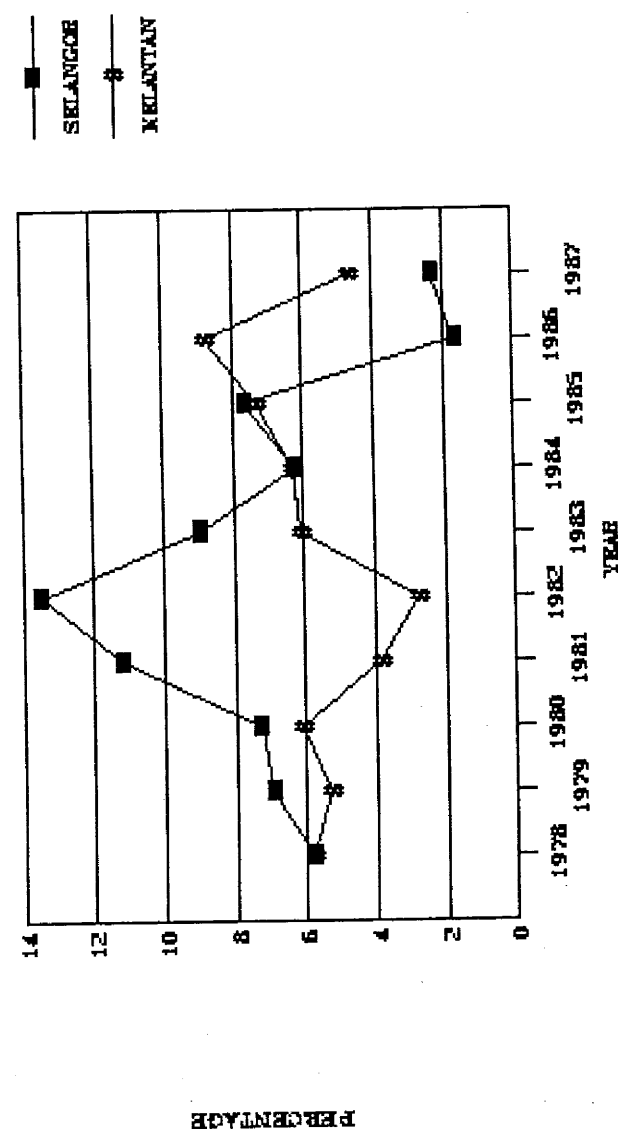


FIGURE 1.5 TRENDS IN PERCENTAGE OF

YOUNG ABUSERS BY STATE



b. Ethnicity

Figure 1.6 presents the trends in percentage of young abusers by ethnicity. For the Malays, there is a gradual decrease in the percentage from 1978 to 1980 and a gradual increase from 1980 to 1987. The trend for the Chinese is inverse of that for the Malays where there is a gradual increase from 1978 to 1980 while a gradual decrease from 1980 to 1987. The percentage for the Indian were quite stable over the years 1978 to 1987 with a slight depression in 1987.

c. Sex

The trends in percentage of both the male and female young abusers are quite stable over the years 1978 - 1987. Majority of those identified each year were males and only a very small proportion of them were female (Please refer to Figure 1.7).

d. Marital Status

The trends in percentage of the young abusers by marital status are presented in Figure 1.8. For both the single and married the trends are quite stable over the years 1978 to 1987. Majority of those identified were single while only a small proportion of them were married.

e. Occupation

The trends in percentage of young abusers by occupation are presented in Figures 1.9 and 1.10.

For the unemployed young abusers, there is a decreasing trend in percentage from 1979 to 1983 with a sharp decrease from 1979 to 1981. After 1983, there is a gradual increase in the percentage of the unemployed. A totally different trend is observed for the unskilled ones as compared to the unemployed. For them, there is an increase in the percentage from 1978 to 1981 with a sharp increase from 1979 to 1981. The percentage remained stable from 1981 to 1982. However, there is a sharp decrease from 1982 to 1983, and from 1983 onwards the percentage remains quite stable. The percentage of semi-skilled young abusers was quite stable over the years 1978 to 1987. For the skilled ones, other than an elevation in 1982 and a minor decrease in 1983, the percentage was stable from 1978 to 1987. For the professionals, there is a gradual depression in the percentage from 1980 to 1987 while for the officials, there is an increasing trend from 1978 to 1981 and a decreasing trend from 1981 onwards. For the student young abusers, there is a decreasing trend from 1978 to 1984 with 2 elevations in 1980 and 1983. However after 1984, there is an increase in the percentage.

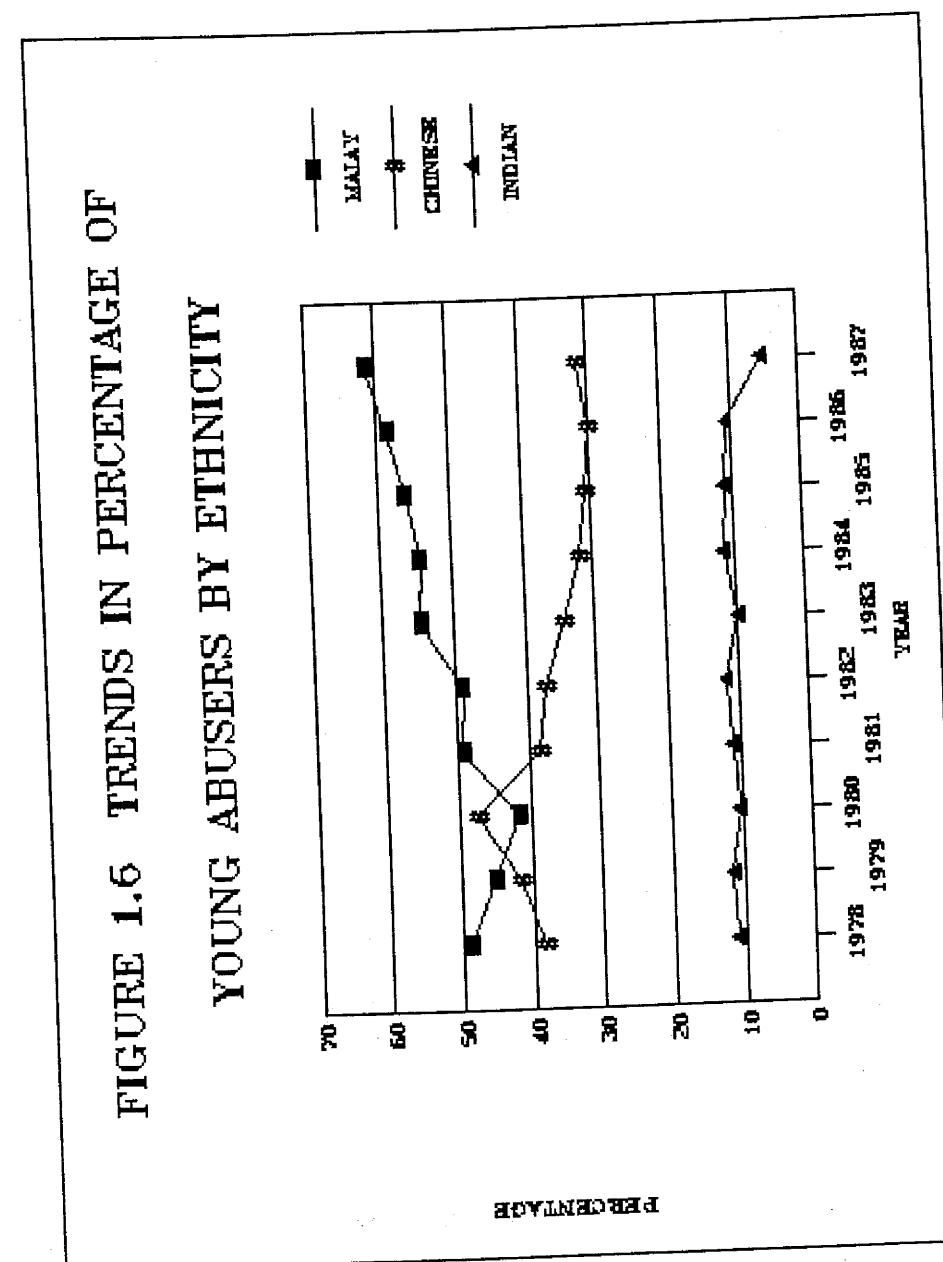


FIGURE 1.7 TRENDS IN PERCENTAGE OF
YOUNG ABUSERS BY SEX

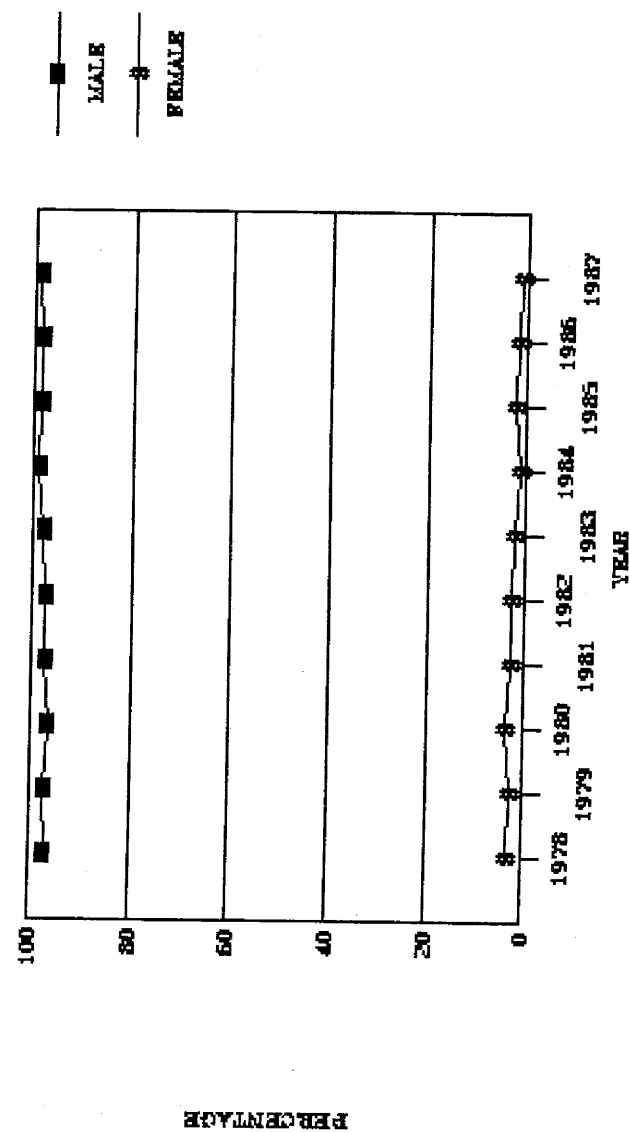


FIGURE 1.8 TRENDS IN PERCENTAGE OF
YOUNG ABUSERS BY MARITAL STATUS

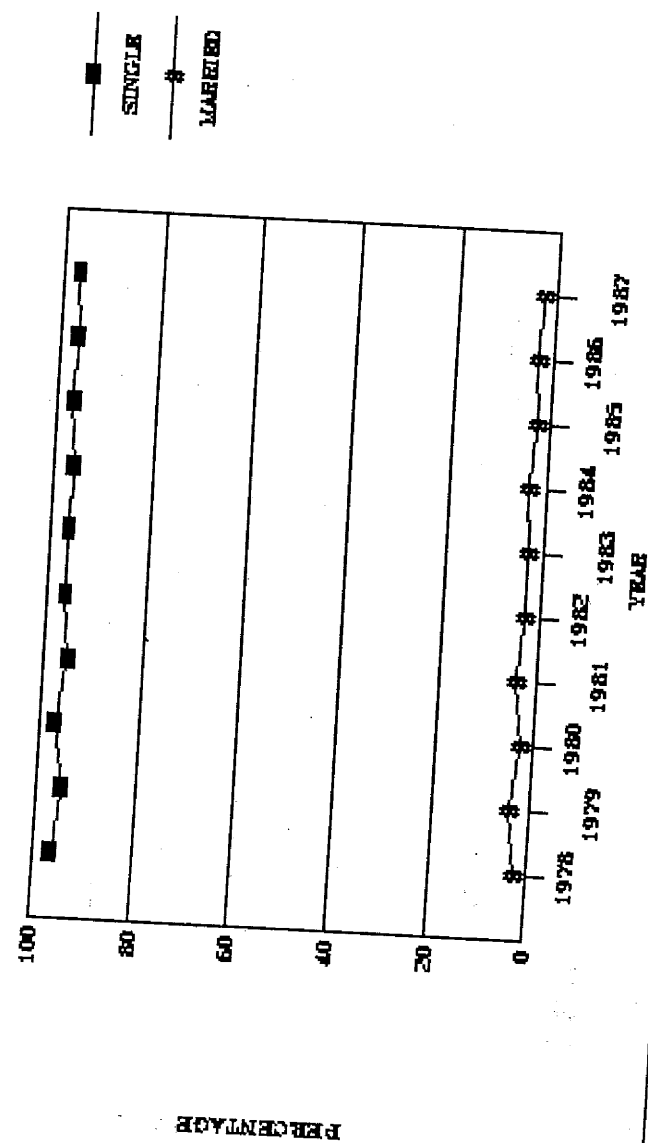


FIGURE 1.9 TRENDS IN PERCENTAGE OF
YOUNG ABUSERS BY OCCUPATION

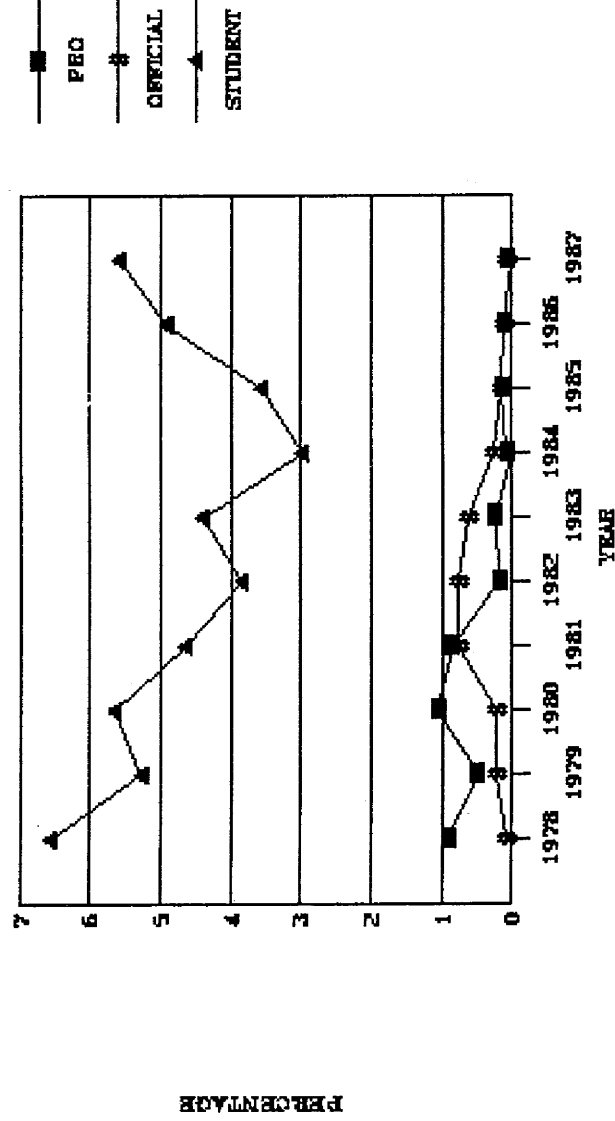
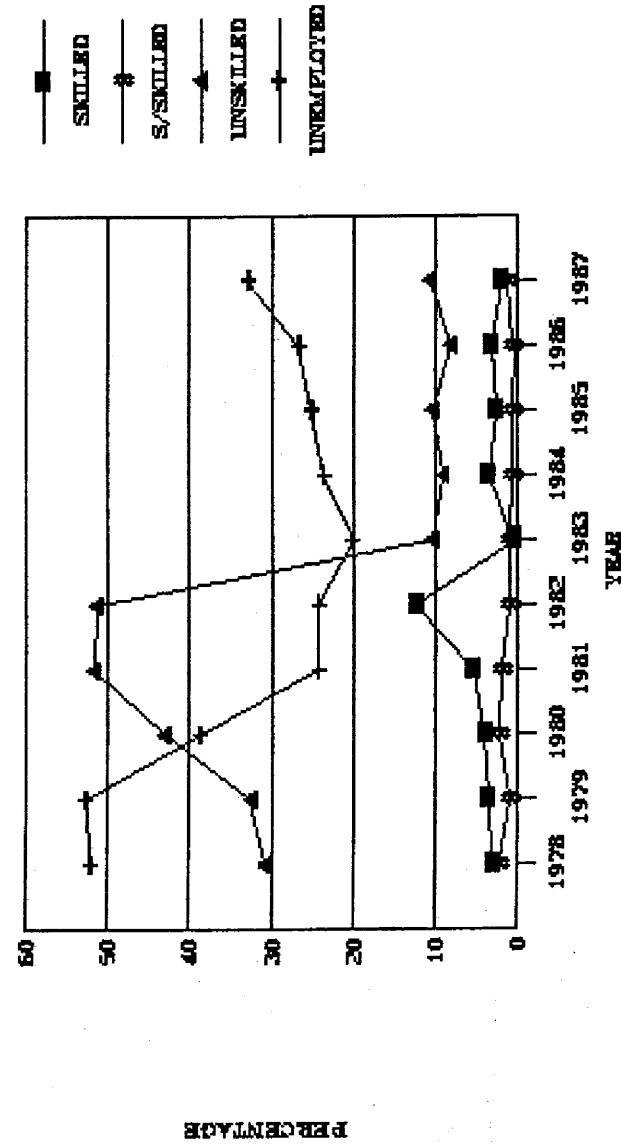


FIGURE 1.10 TRENDS IN PERCENTAGE OF
YOUNG ABUSERS BY OCCUPATION



f. Monthly Income

A decreasing trend is observed for the percentage of young abusers with monthly income of \$250 and below from 1978 to 1986, while gradual increasing trend are found for those who earn between \$251 and \$350, \$351 and \$600 or \$601 and \$1,000 a month from 1978 to 1985. For those earning more than \$1,000 a month, the percentage remains stable over these 10 years (Please refer to Figure 1.11).

g. Level of Education

There is a declining trend in percentage of young abusers who have attained primary education from 1978 to 1987. On the other hand there is an increase in the percentage of those who have attained lower secondary education from 1980 to 1984 and remains stable after 1984 (Please refer to Figure 1.12). For those who have attained upper secondary education, the percentage remains stable from 1979 to 1982 after an elevation in 1979 and then a depression in 1983 where the percentage remains stable again after 1983. The percentage for those who have no education remains stable from 1980 to 1987.

h. Criminality

Figure 1.13 presents the trends in percentage of young abusers by criminal record. For the young abusers who were ever arrested, there is a decrease in percentage from 1980 to 1983 and then the percentage remains stable after 1983 except an elevation in 1986. The trends for those who were ever convicted and those ever incarcerated were found to be similar. Generally, they are gradual decreasing trends from 1978 to 1987 with elevations in 1981 and 1986.

Figure 1.14 and Figure 1.15 present the trends in percentage of young abusers by type of criminal offences committed. There is a gradual decrease in the percentage of young abusers in possession of drug with slight elevations in 1980, 1984 and 1987. For the other types of criminal offences committed, i.e. pushing drugs, stealing and robbing, the trends are similar from 1980 to 1986. These trends are similar to the solenoid with upper peak in 1985 and 1981 (1982 for those who robbed), and lower peak in 1983 (1984 for those who robbed). After 1986, there is a high elevation in the trend for those who pushed drugs and low depression for those who stole. For those who robbed, the trend continues to decrease in 1987.

FIGURE 1.11 TRENDS IN PERCENTAGE OF
YOUNG ABUSERS BY MONTHLY INCOME

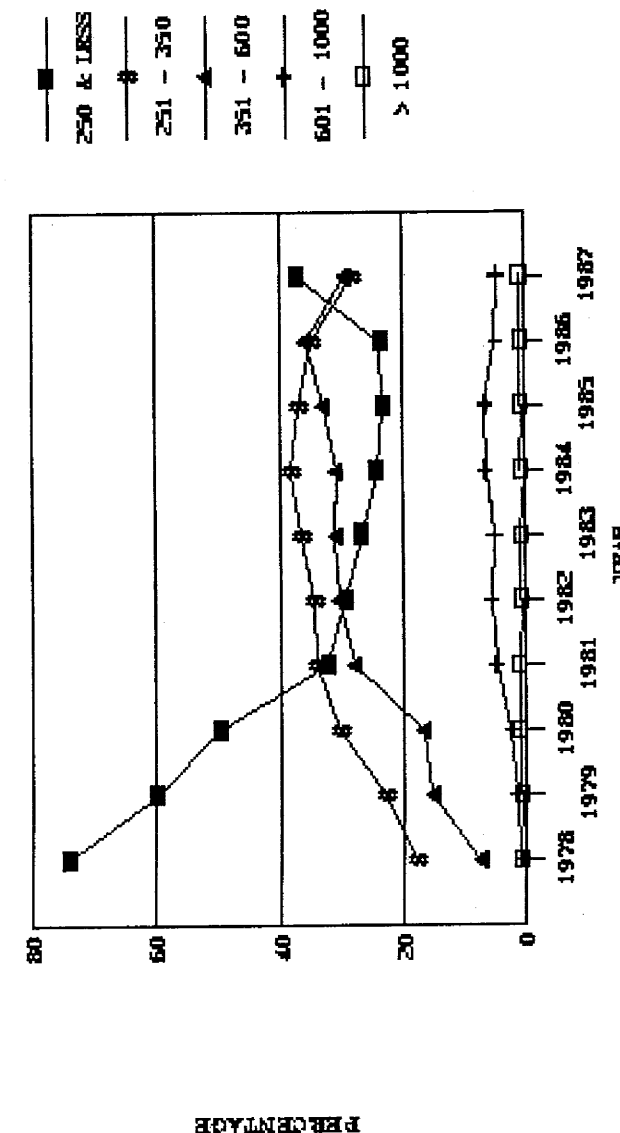


FIGURE 1.12 TRENDS IN PERCENTAGE OF
YOUNG ABUSERS BY LEVEL OF EDUCATION

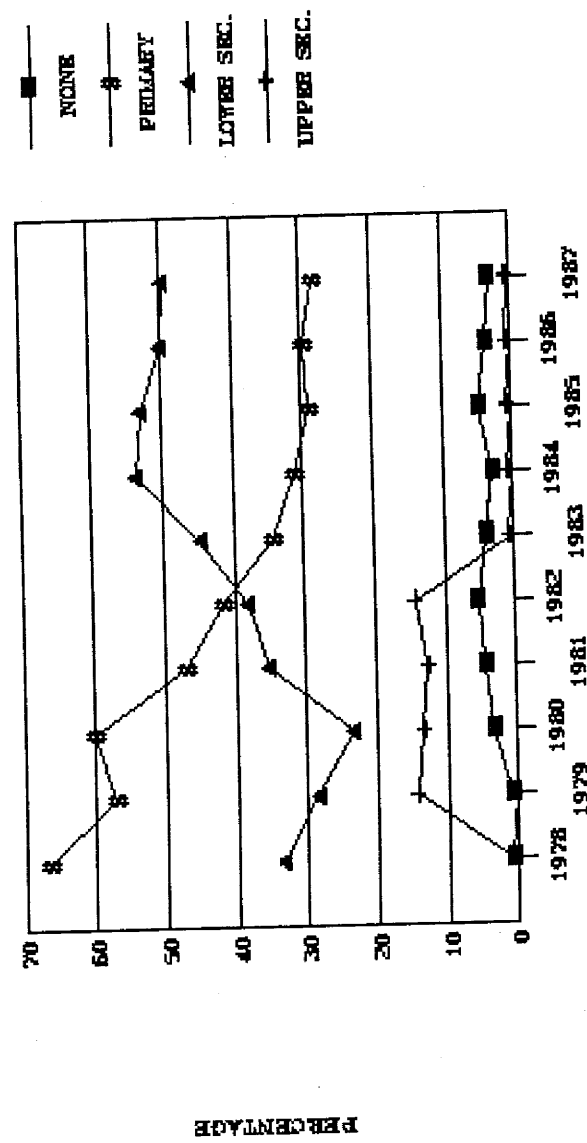


FIGURE 1.13 TRENDS IN PERCENTAGE OF
YOUNG ABUSERS BY CRIMINAL RECORD

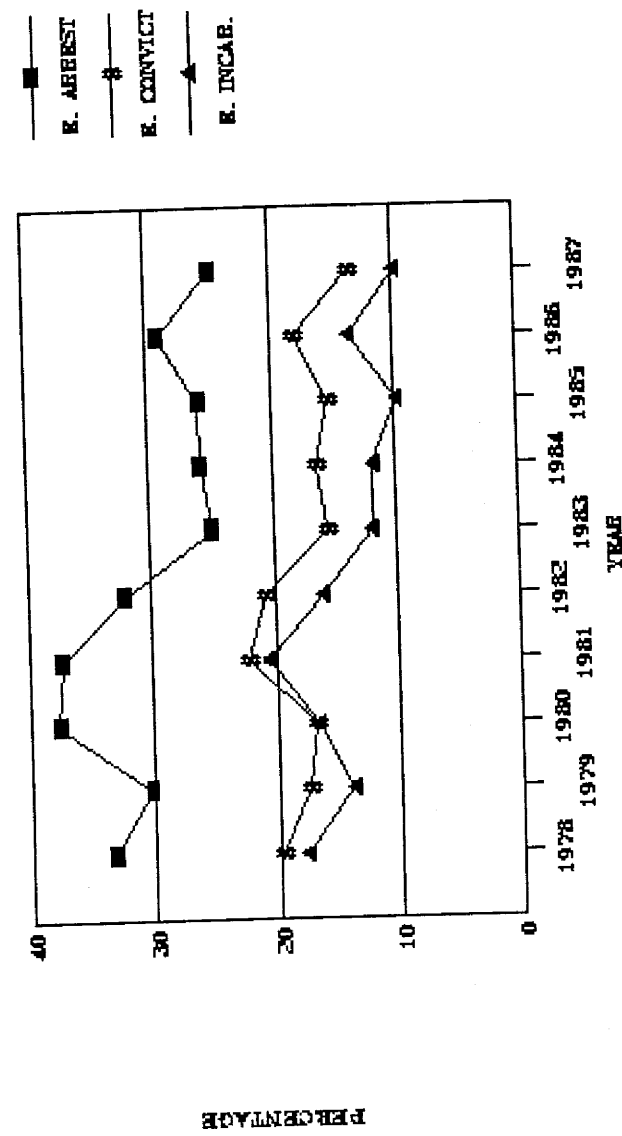


FIGURE 1.14 TRENDS IN PERCENTAGE OF
YOUNG ABUSERS BY CRIMINAL OFFENCE

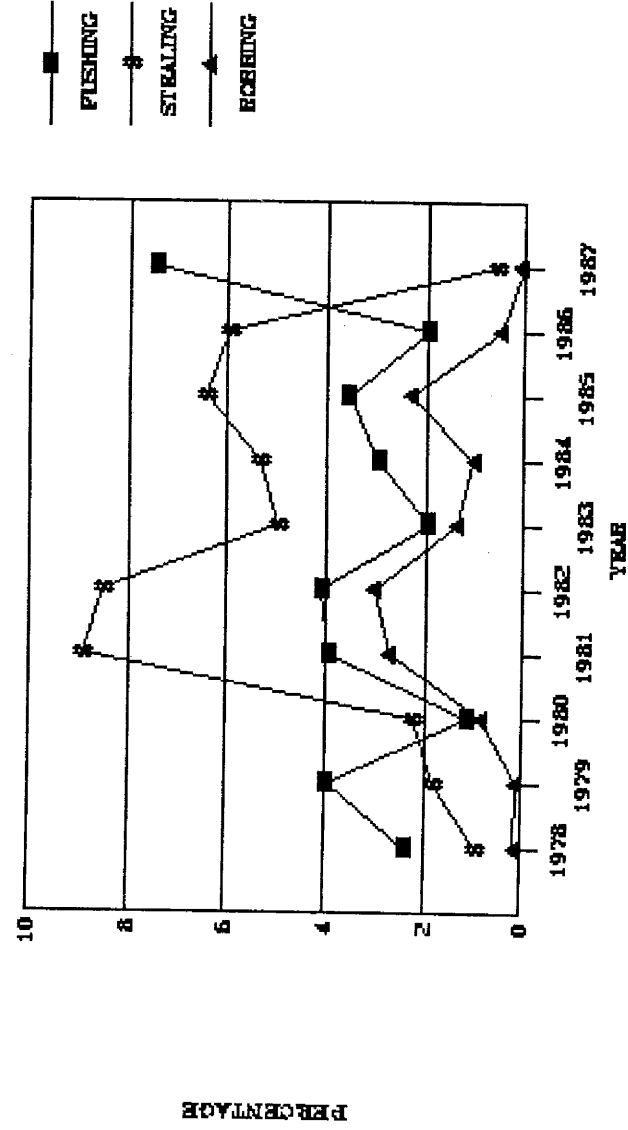
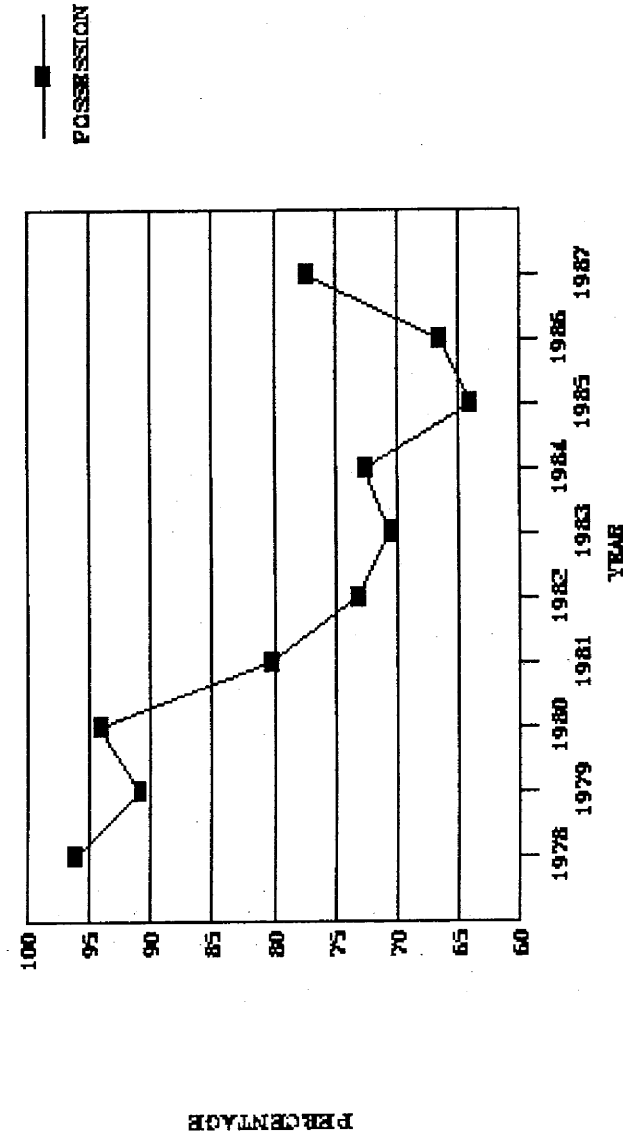


FIGURE 1.15 TRENDS IN PERCENTAGE OF
YOUNG ABUSERS BY CRIMINAL OFFENCE



GENERAL PATTERN OF DRUG USE

a. Drugs Ever Used

Figure 1.16 reveals a gradual decreasing trend for the percentage of young abusers who have ever used heroin and a gradual increasing trend for the percentage of those who have ever used cannabis. For those who have ever used tobacco, there is an increase in the percentage from 1979 to 1982 and then a gradual decrease with a slight elevation in 1984.

Trends in percentage of young abusers who have ever used alcohol, opium, morphine and barbiturates are presented in Figure 1.17. For those who have ever used alcohol, there is quite a sharp increase in percentage from 1979 to 1982 while a sharp decrease from 1982 to 1986.

For those who have ever abused barbiturates, there is an irregular trend in the percentage. From 1979 to 1981, there is a sharp increase in the percentage, and a sharp decrease from 1981 to 1984. However, the percentage increased again after 1984 and started decreasing after 1986.

Trends in percentage of young abusers using morphine and opium were opposite of each other over the years 1978 to 1987. There is a gradual decreasing trend for opium use while a gradual increasing trend for morphine use.

For the use of tranquillisers and mandrax pills, the trends are similar from 1979 to 1987. These trends are similar to solenoid with upper peaks in 1981 and lower peaks in 1984 (tranquillizers) and 1985 (Mandrax) (Figure 1.18).

b. Drug Used at the Time of Identification.

The trends in percentage of young abusers by type of drug used at the time of identification were similar to that by type of drug ever used for tobacco, heroin, cannabis (Please refer to Figure 1.19) barbiturate, morphine, opium and alcohol (Please refer to Figure 1.20 and 1.21).

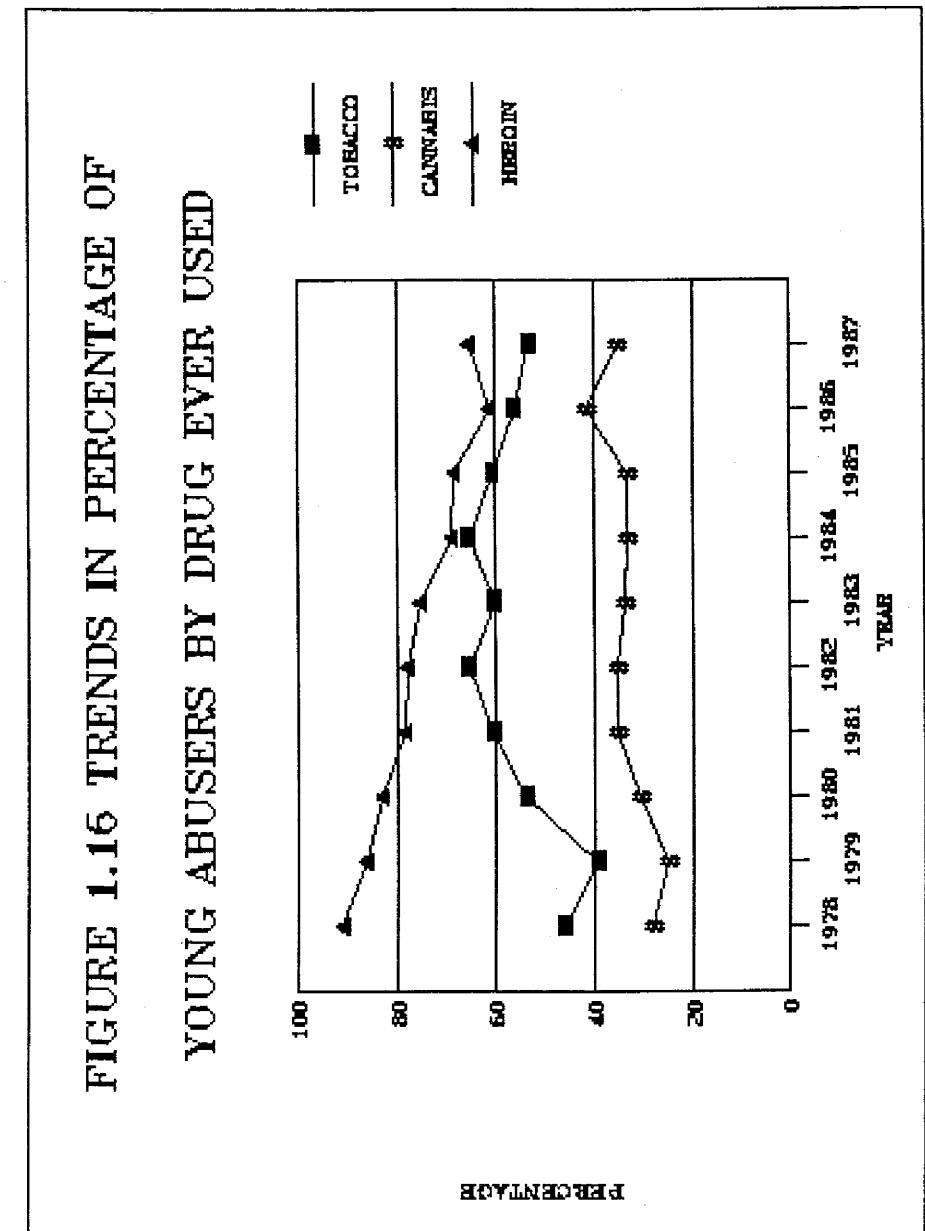


FIGURE 1.17 TRENDS IN PERCENTAGE OF
YOUNG ABUSERS BY DRUG EVER USED

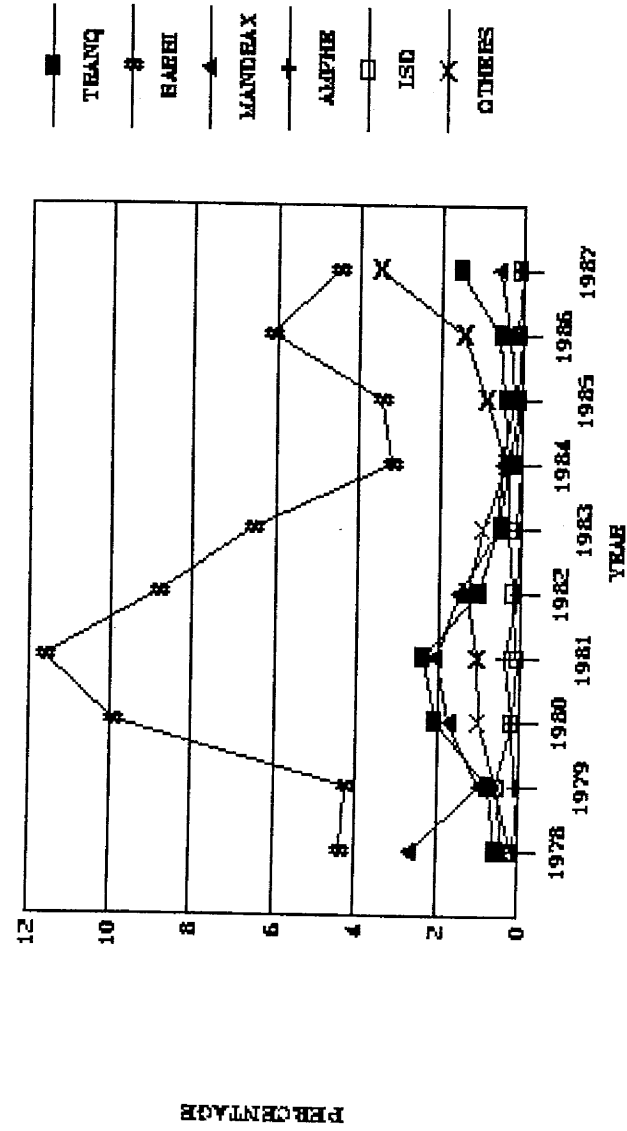


FIGURE 1.18 TRENDS IN PERCENTAGE OF
YOUNG ABUSERS BY DRUG EVER USED

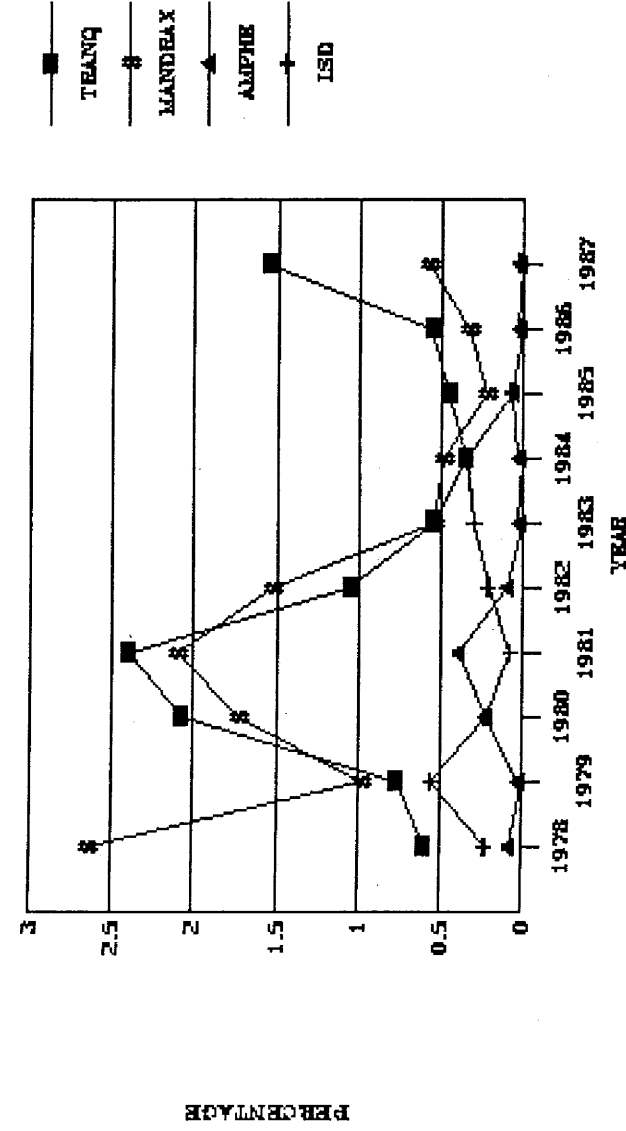


FIGURE 1.19 TRENDS IN PERCENTAGE OF
DRUG ABUSERS BY DRUG CURRENTLY USED

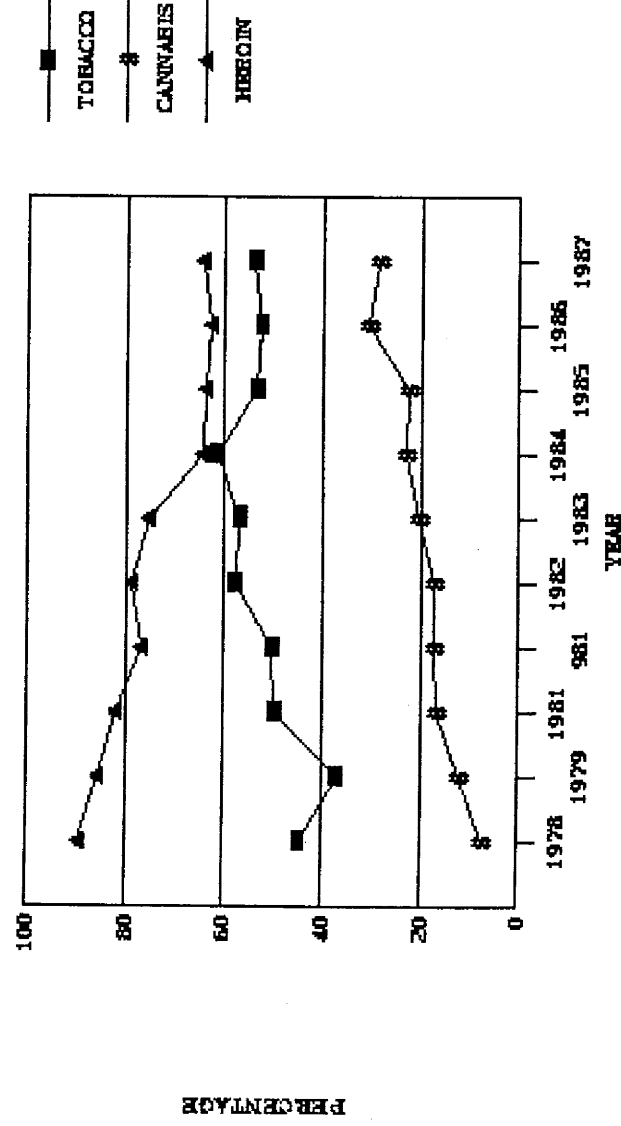
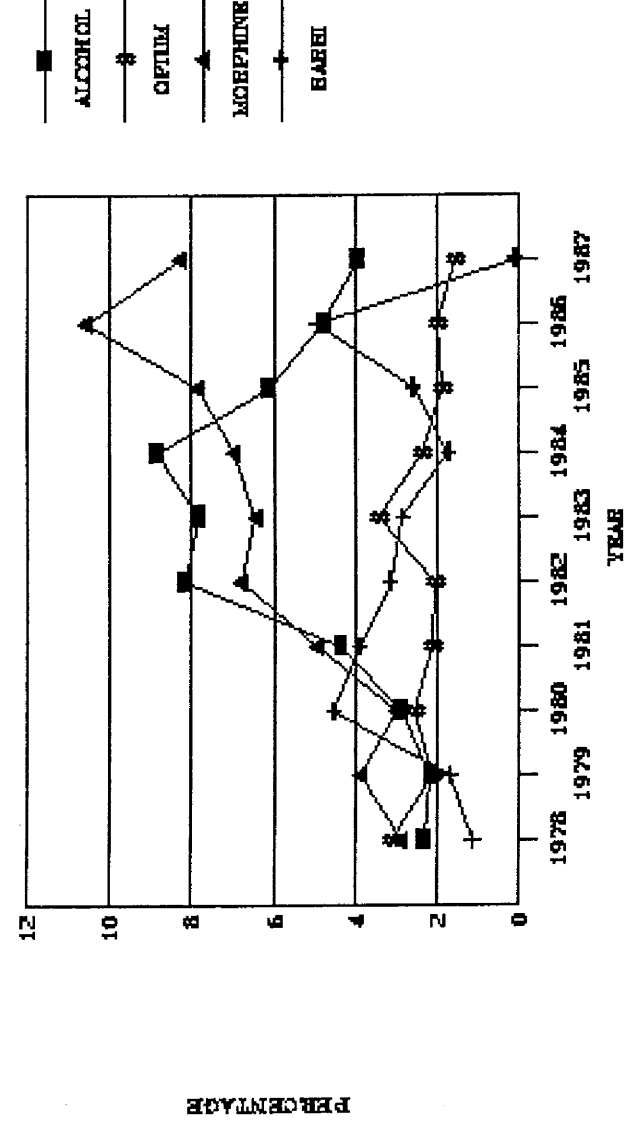
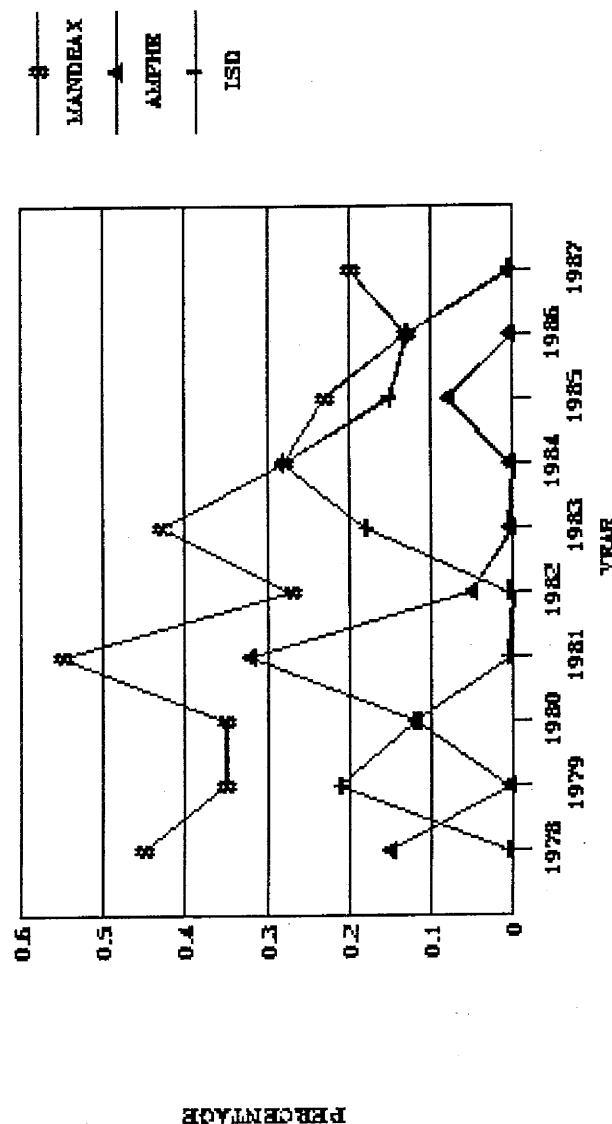


FIGURE 1.20 TRENDS IN PERCENTAGE OF
YOUNG ABUSERS BY DRUG CURRENTLY USED



**FIGURE 1.21 TRENDS IN PERCENTAGE OF
YOUNG ABUSERS BY DRUG CURRENTLY USED**



c. Age of Onset of Substance Use

Figure 1.22 presents the trends in percentage of young abusers by age of onset. A slight gradual decreasing trend is found in the percentage of those who started drug use at the age of 15 to 19 years old with slight elevations in 1980, 1983 and 1986. However, a slight gradual increasing trend is observed in the percentage of those who started substance use at the age of 20 to 21 years old with slight depression in 1986. The percentage for those who started using drugs under the age of 15 was quite stable over the period 1978 - 1987.

d. Reasons for Drug Use

From 1978 to 1982, there is an increasing trend in percentage for the young abusers who used drugs to get pleasure (Please refer to Figure 1.23). However, there is a drop in percentage after 1982 which remained stable from 1983 to 1985. For those who used drugs due to curiosity, there is an increasing trend from 1978, which reached a peak in 1982 and then decreased gradually from 1982 to 1987. The percentage for the those who used drugs because of peer pressure was quite stable over the period 1978 to 1987 with a slight depression in 1981 and an elevation in 1986. For those who used drugs accidentally or to get away from their emotional problems, there is a gradual increasing trend from 1978 to 1982 and followed by a gradual decreasing trend from 1982 to 1985.

e. Duration of Drug Use

In Figure 1.24, there is an increasing trend in the percentage of young abusers who used drugs for less than a year from 1978 to 1982. After that, the percentage was stable till 1987 where a depression occurred. For those who used drugs for 1 to 2 years and 2.1 to 4 years, there is a slight gradual decreasing trend from 1978 to 1982 and remained quite stable after 1982. The percentage for those who used drugs for more than 6 years was stable over the 10 years, period a similar trend was found for those who used drugs for 4.1 to 6 years, except for a slight elevation in 1980.

FIGURE 1.22 TRENDS IN PERCENTAGE OF
YOUNG ABUSERS BY AGE OF ONSET

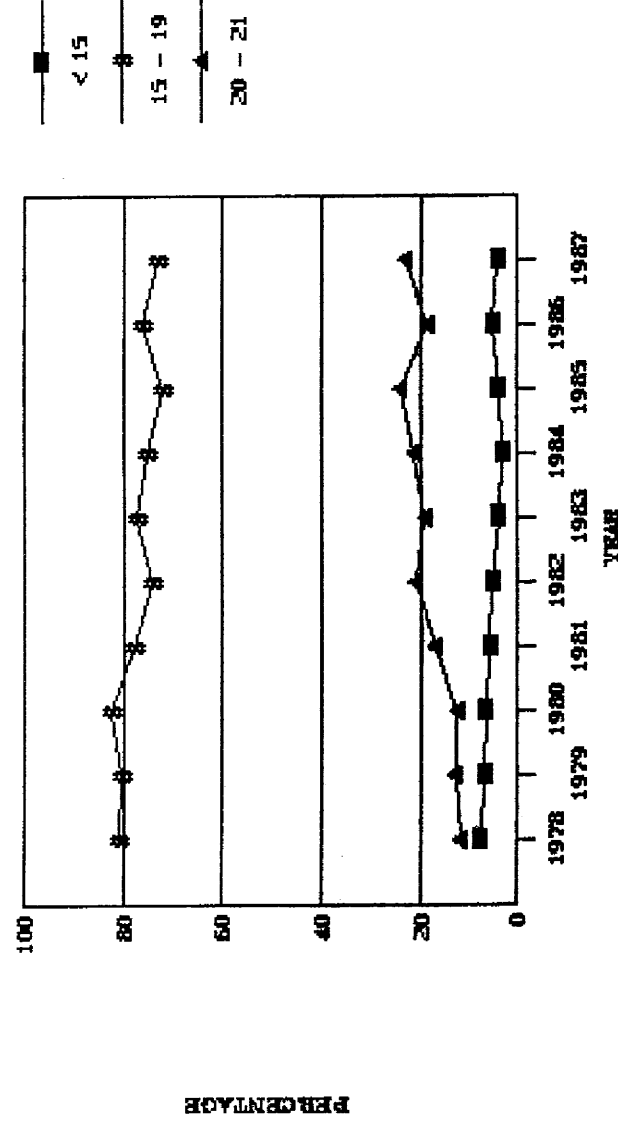


FIGURE 1.23 TRENDS IN PERCENTAGE OF
YOUNG ABUSERS BY REASON FOR DRUG USE

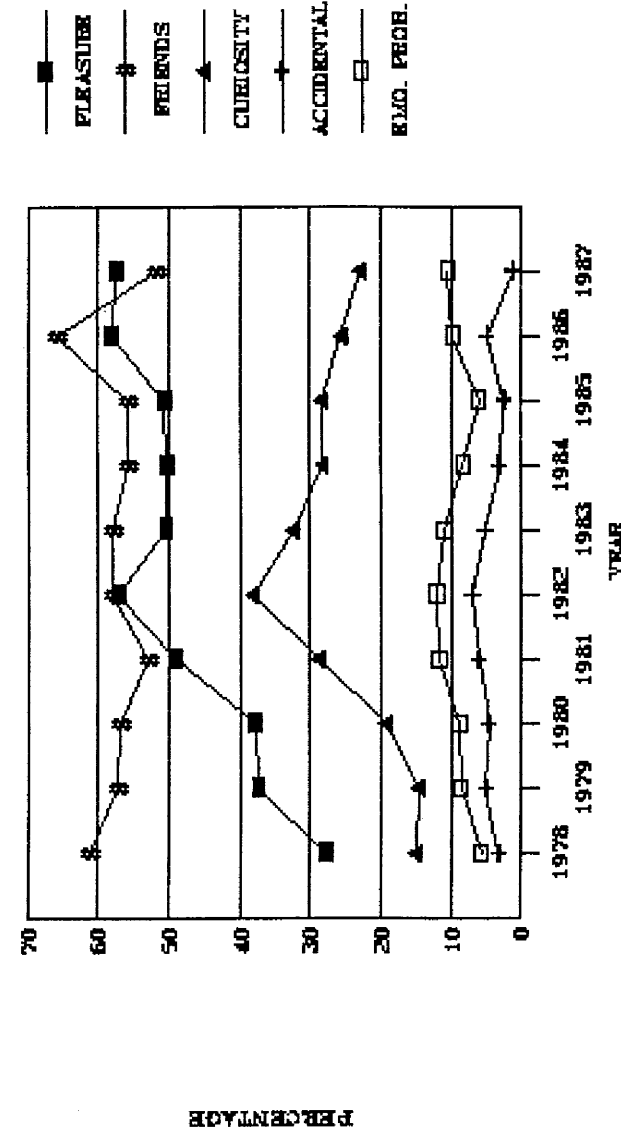
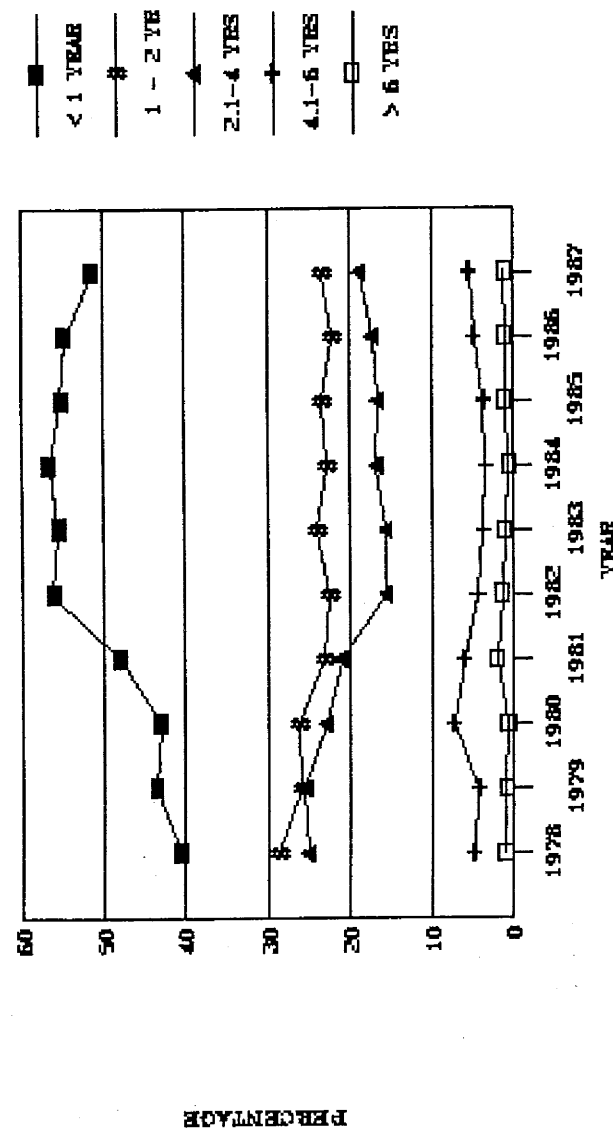


FIGURE 1.24 TRENDS IN PERCENTAGE OF
YOUNG ABUSERS BY DURATION OF USE



f. Daily Expenditure on Drug

Figure 1.25 presents the trends in percentage of young abusers by daily expenditure. There is a gradual increasing trend in percentage of those who spent 6 to 10 ringgit with a depression in 1984. For those who spent 1 to 5 ringgit daily, there is a sharp drop in percentage from 1978 to 1980 then an increase till 1984. After 1984, the percentage gradually decreased till 1987. Similar trends were found for those who spent 11 to 15 ringgit and 16 ringgit and above daily from 1978 to 1984. There is an increase in percentage from 1978 to 1980 and followed a decrease from 1980 to 1984. However, after 1984, there is an increase in percentage for those who spent 11 to 15 ringgit while a decrease for those who spent 16 and above ringgit daily.

g. Sources of Drugs

The percentage of young abusers who obtained their drugs from friends increased from 1978 to 1982 and then decreased till 1985. After 1985, there is an increase in the percentage again. For those who obtained their drugs from addict-pushers, there is a decreasing trend from 1978 to 1981. After that, there is a gradual increasing trend from 1981 to 1986 with a slight elevation in 1982. The trend for those who obtained drugs from non-addict pushers was similar to that for those who obtained from friends from 1978 to 1986. For those who obtained their drugs from the coffee shops and shops other than coffee shops, the percentage were quite stable over the ten years' period except slight elevations in 1981 and 1982.

FIGURE 1.25 TRENDS IN PERCENTAGE OF
YOUNG ABUSERS BY DAILY EXPENDITURE

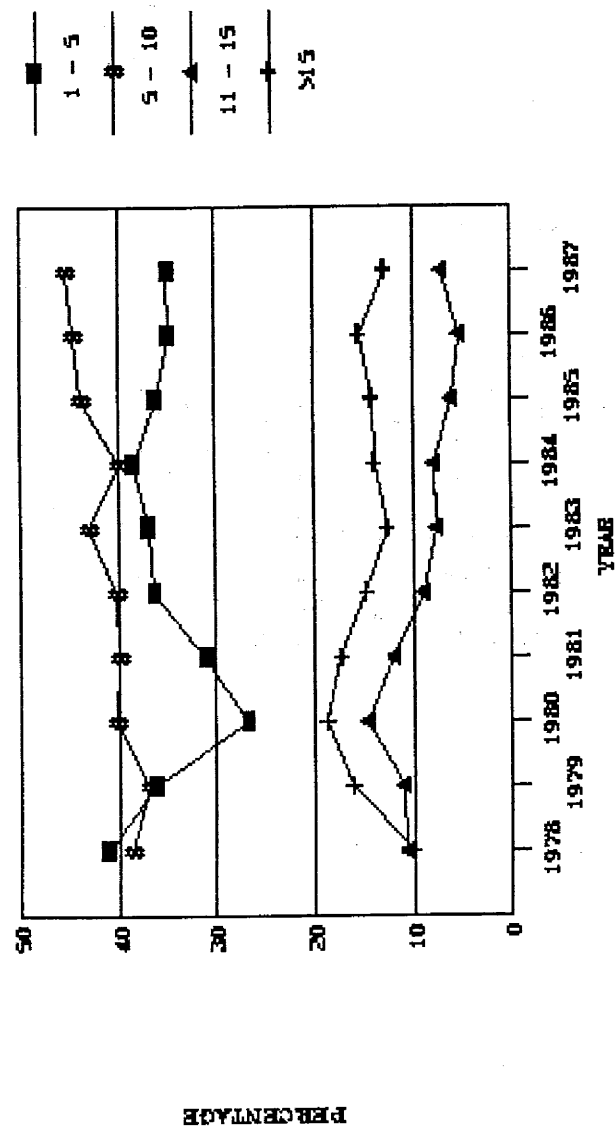
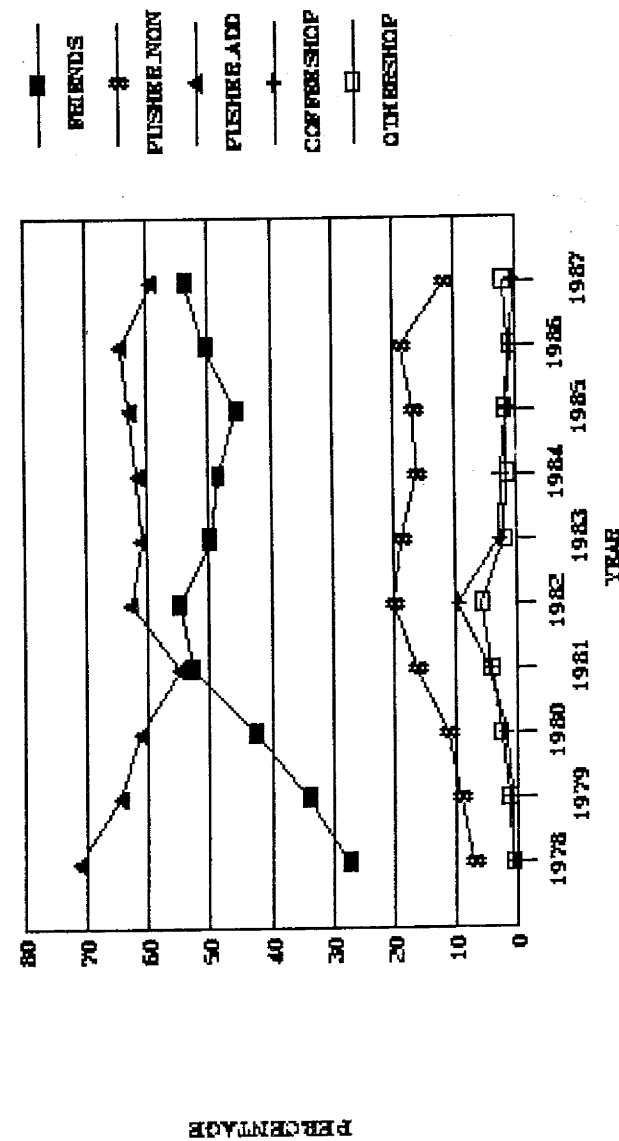


FIGURE 1.26 TRENDS IN PERCENTAGE OF
YOUNG ABUSERS BY SOURCE OF DRUGS

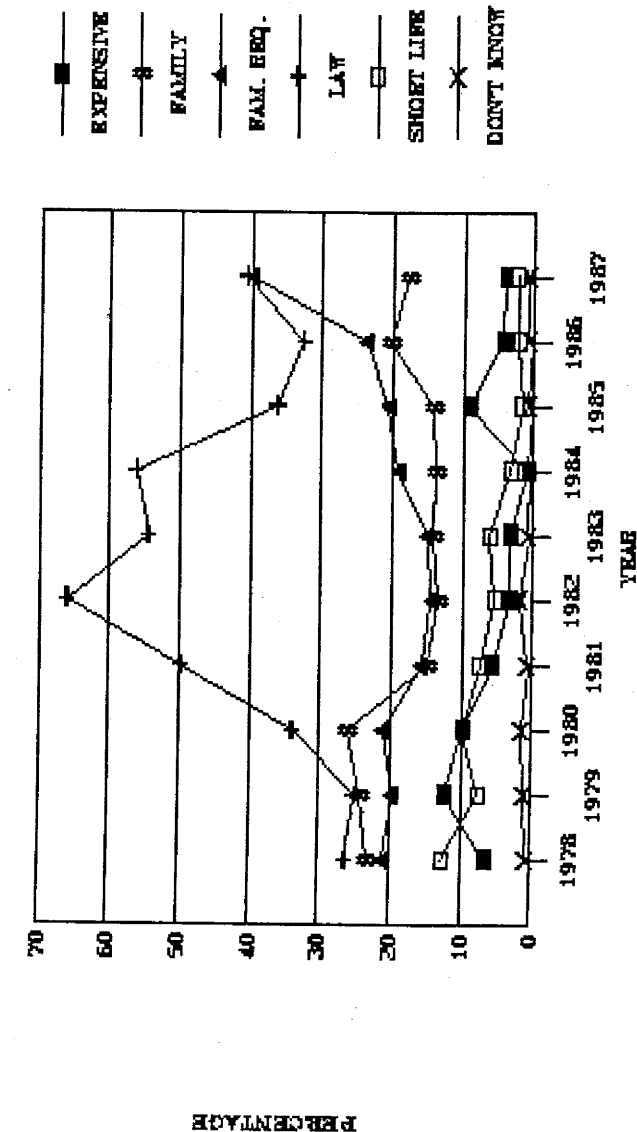


h. Reasons for Discontinuance of Drug Use

Figure 1.27, presents the trends in percentage of young abusers by the reason for discontinuance of drug use.

There is a sharp increase in the percentage of young abusers who discontinued drug use due to pressure from the law enforcement from 1978 to 1982, followed by a decrease after 1982 with slight elevations in 1984 and 1987. For those who discontinued using drugs either because of family or on family's request, the trends are similar from 1978 to 1983. These trends are stable from 1978 to 1980, then there is a gradual decrease from 1980 to 1983. After 1983, the trends increased gradually to 1987. Percentages for those who discontinued drug use because drugs were more expensive and because drugs could shorten their lives decreased from 1978 to 1987.

FIGURE 1.27 TRENDS IN PERCENTAGE OF
YOUNG ABUSERS BY REASON FOR STOPPING



4.6 TREND COMPARISON FOR THE YOUNG ABUSERS BY THE SOCIO-DEMOGRAPHIC CHARACTERISTICS AND THE PATTERN OF DRUG USE OVER THE YEARS 1978-1987

In the previous chapter, the trends in percentage of young abusers by the selected socio-demographic characteristics and general patterns of drugs use were studied. In this chapter, the trends for each of the selected socio-demographic characteristics and the variables in the general patterns of drugs use will be compared over the years 1978 to 1987. For comparison purposes, the profile for each of the selected variables is plotted against the standard deviation for the mean over the ten years (1978 - 1987).

4.6.1 SOCIO DEMOGRAPHIC CHARACTERISTICS

a. State of Identification

Figure 2.1, Figure 2.2 and Figure 2.3 show the profiles of the young abusers according to the identification by states. Generally, the profiles are irregular and an overall general trend comparison pattern was unable to be visualised from these profiles.

b. Ethnicity

Figure 2.4 reveals that the profiles for the young abusers with different ethnicity are different. Profile for the Malays is inverse of that for the Chinese. Relatively, after 1980, larger proportion of the youths identified as abusers were Malays while the proportion of Chinese identified as abusers was decreasing each year. However, the profile for the Indian is irregular with elevations in 1979 and 1982 and depressions in 1983 and 1987.

c. Sex

The profile for the male young abusers is inverse of that for the female due to the fact that only two variables exist under this socio-demographic characteristic. The profiles indicate that, relatively, larger proportion of male while smaller proportion of female were identified as drug abusers each year from 1978 to 1987.

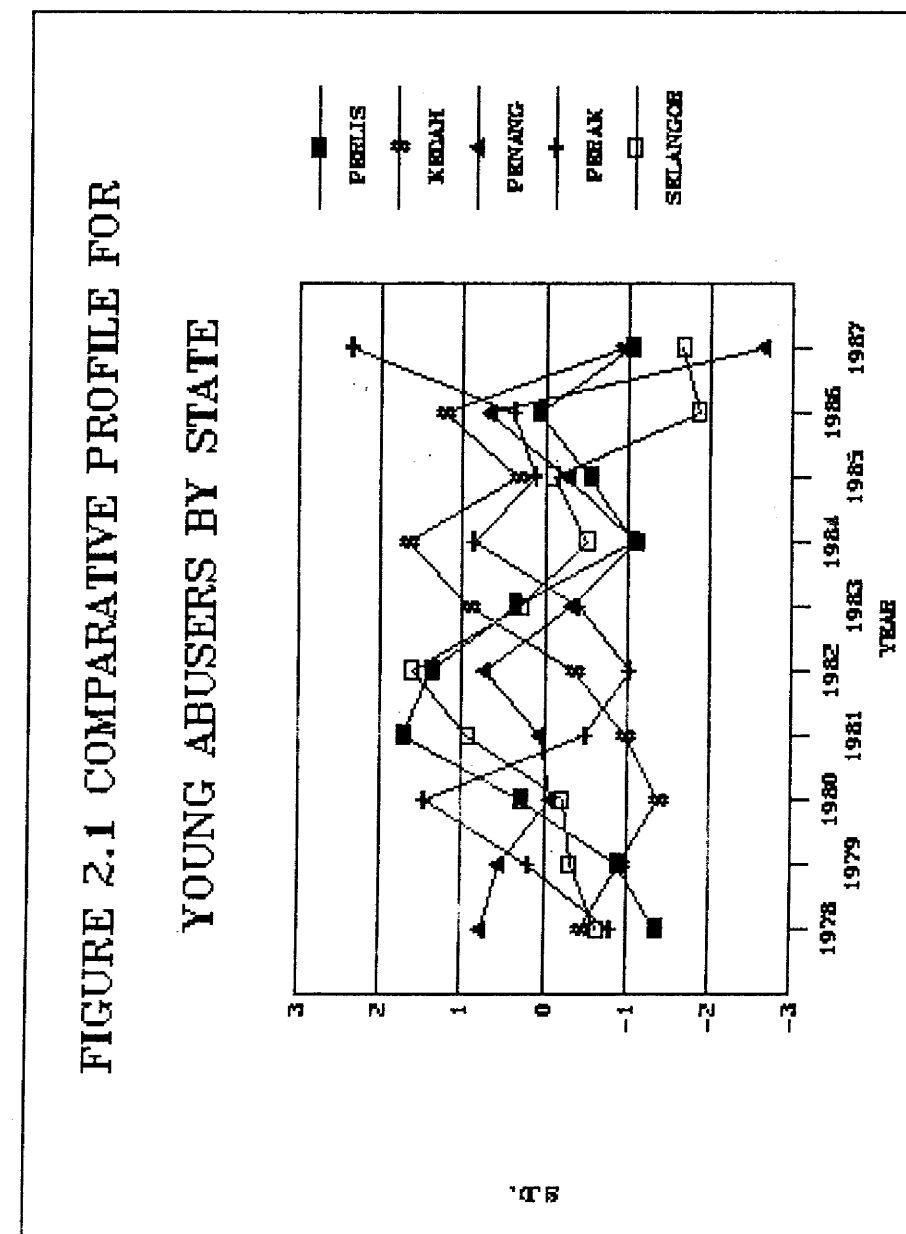


FIGURE 2.2 COMPARATIVE PROFILE FOR

YOUNG ABUSERS BY STATE

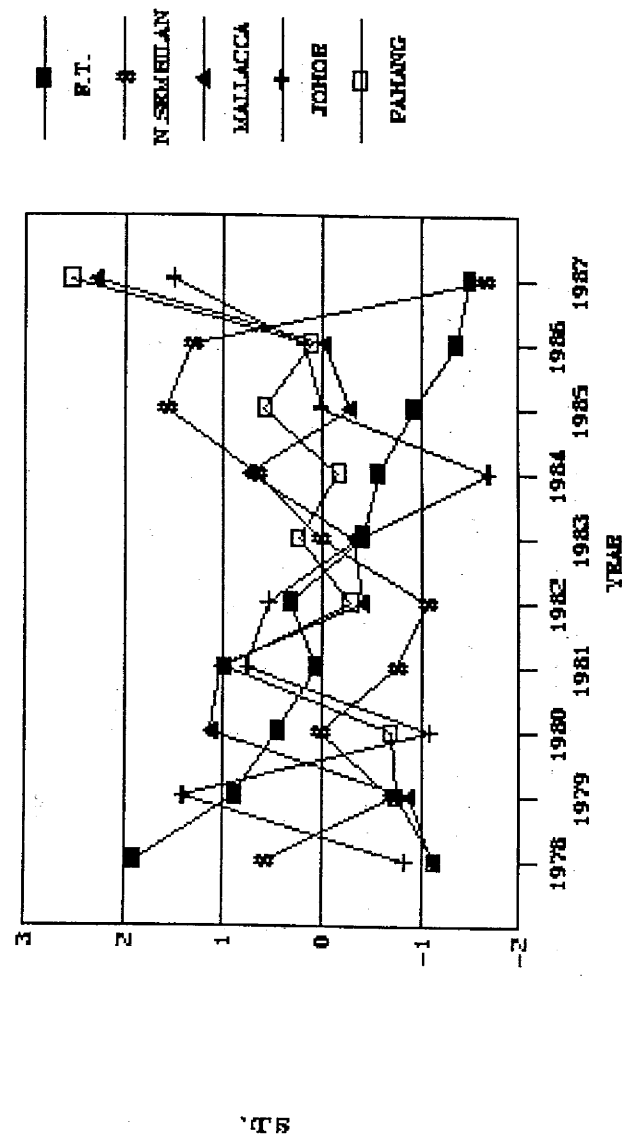


FIGURE 2.3 COMPARATIVE PROFILE FOR

YOUNG ABUSERS BY STATE

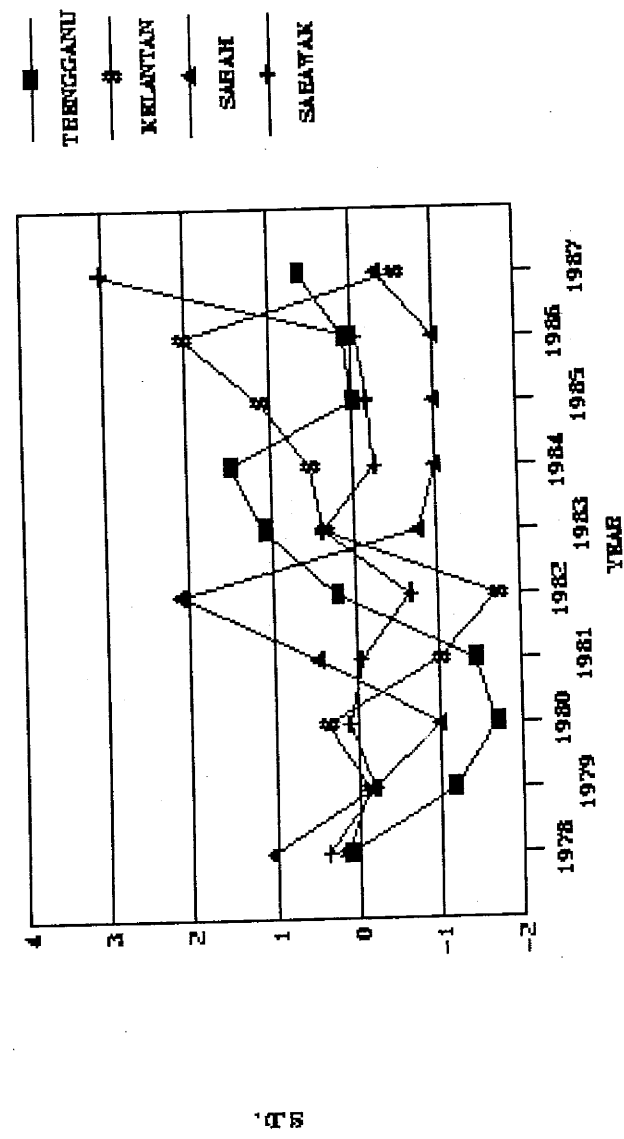


FIGURE 2.4 COMPARATIVE PROFILE FOR
YOUNG ABUSERS BY ETHNICITY

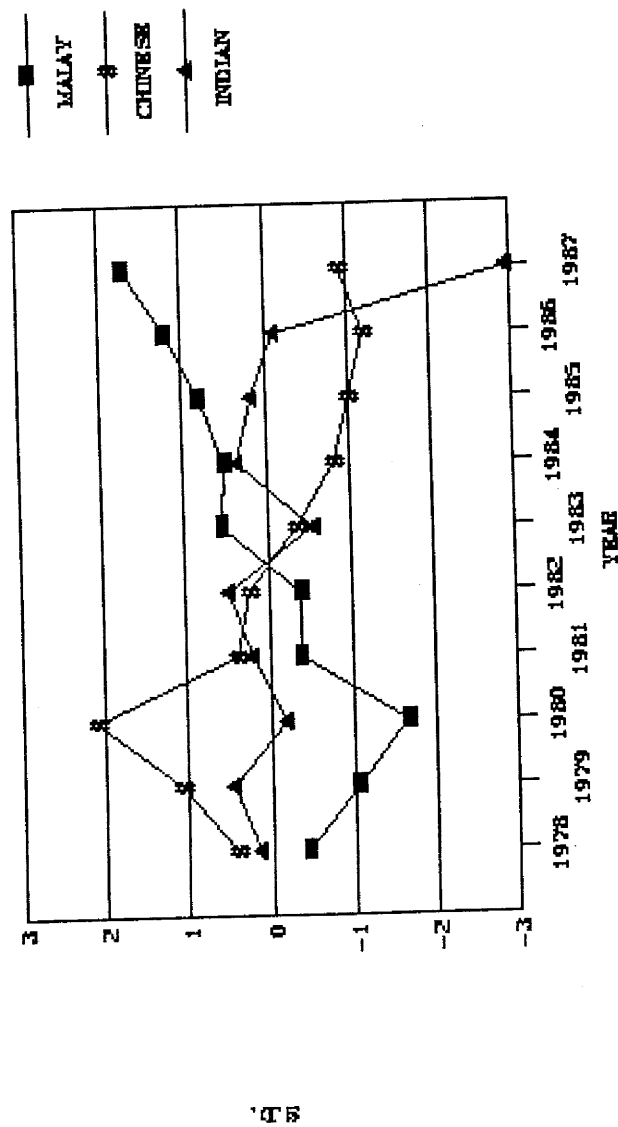
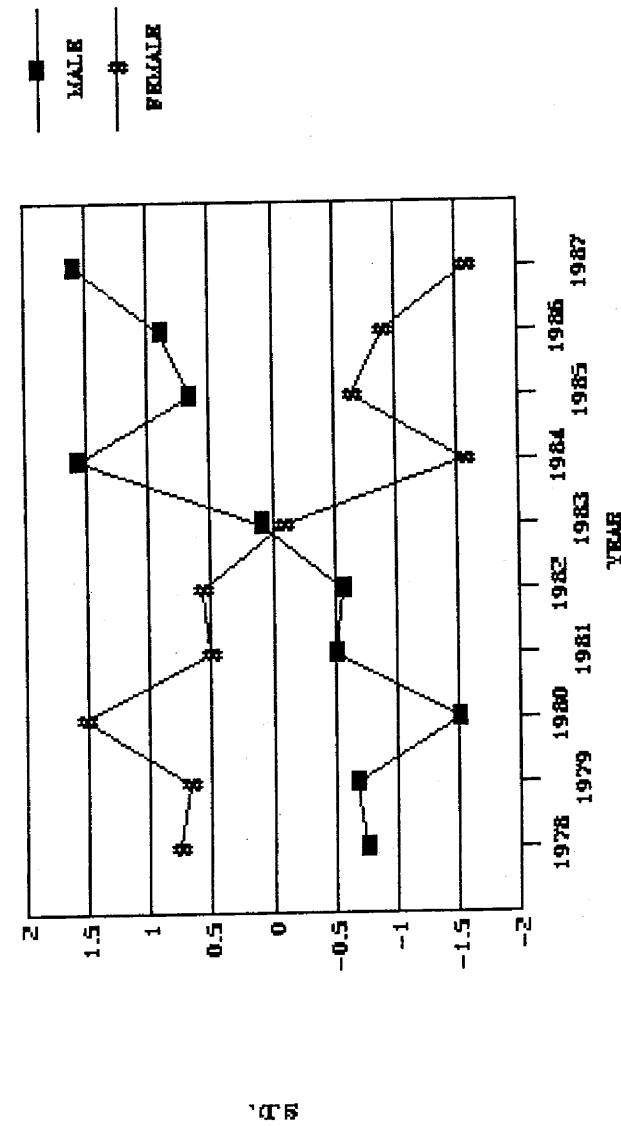


FIGURE 2.5 COMPARATIVE PROFILE FOR
YOUNG ABUSERS BY SEX



d. Marital Status

Due to the negligible number of young abusers who were divorced/separated or widowed, they are not included in the profile comparison by marital status. Figure 2.6 reveals that the profile for the single and married young abusers are irregular. However, the profile for the single young abusers are inverse of that for those who were married.

e. Occupation

Profiles of similar shape were observed for the young abusers who were professionals and semi-skilled workers, and for officials and unskilled workers. Profile for the skilled workers was different from the above with an outstanding elevation in 1982. Profiles for the students and unemployed were similar. When compared to the profiles for the above categories of young abusers, they are totally different.

f. Monthly Income

Figure 2.9 reveals that the profiles for those who earned \$251-\$350, \$351 - \$600, \$601-\$1,000 ringgit monthly are similar. From 1978 to 1984, larger proportion of young abusers of these categories of monthly income were identified as drug abusers each year. However, after 1984, the profiles declined indicating a drop in the proportion of these young abusers. For those who earned 250 ringgits and less monthly, the profile is inverse of those discussed above indicating smaller proportion of those who earned 250 ringgit were identified as drug abusers each year over 1978 to 1986. The profile for those who earned more than 1,000 ringgit is irregular and very different from the others.

From 1978 to 1981, the profiles for the young abusers of different categories of monthly income (except for those who earned more than 1,000 ringgit monthly) converged to their respective means. However, the profiles diverged after 1981.

FIGURE 2.6 COMPARATIVE PROFILE FOR
YOUNG ABUSERS BY MARITAL STATUS

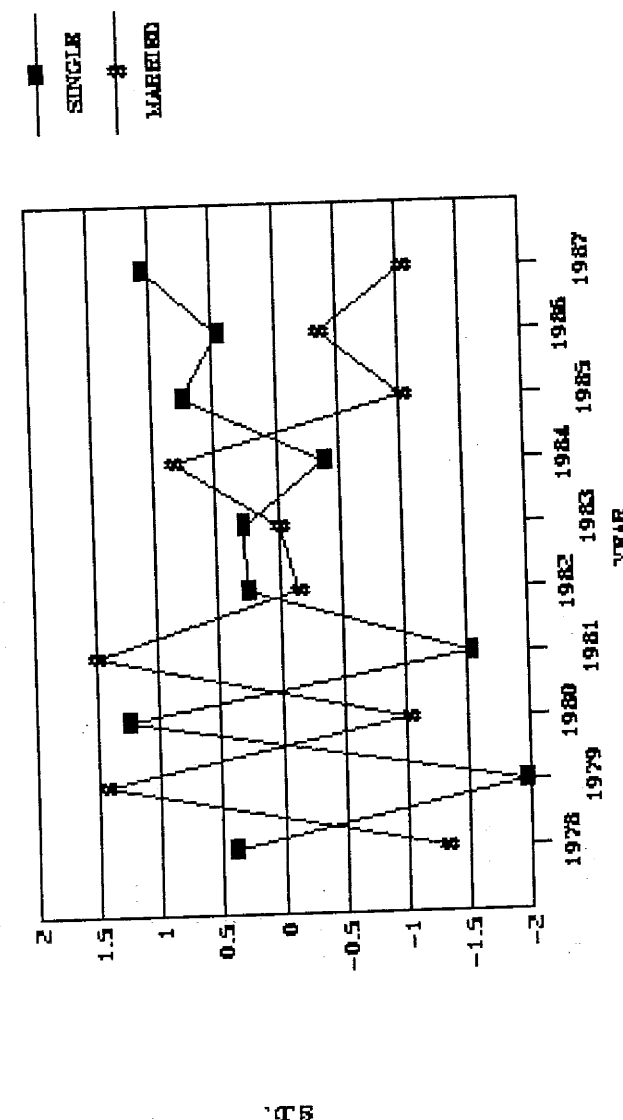


FIGURE 2.7 COMPARATIVE PROFILE FOR
YOUNG ABUSERS BY OCCUPATION

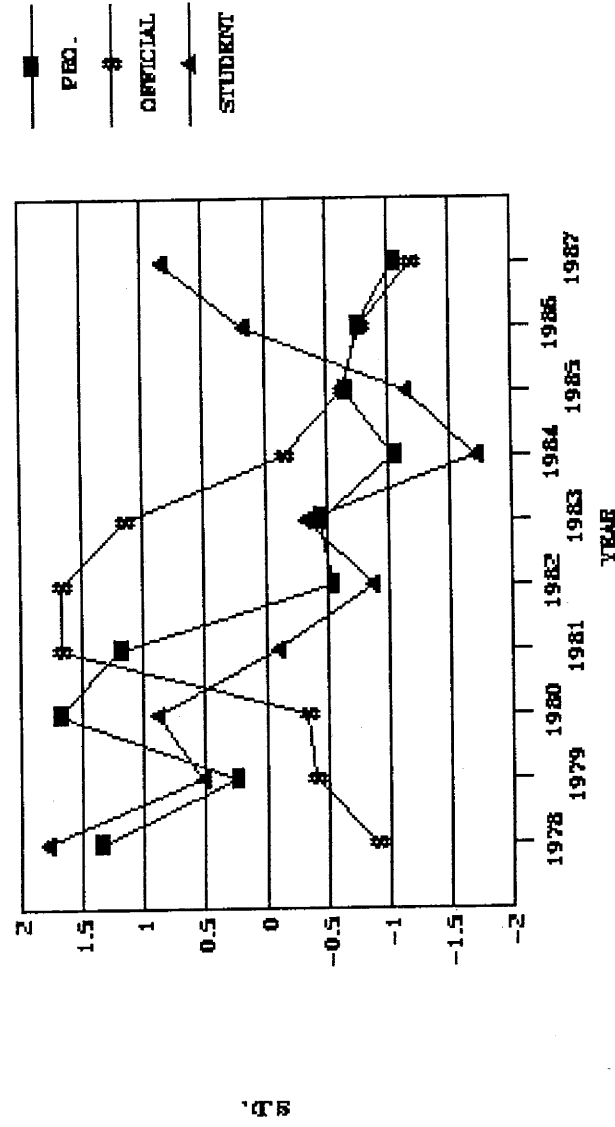


FIGURE 2.8 COMPARATIVE PROFILE FOR
YOUNG ABUSERS BY OCCUPATION

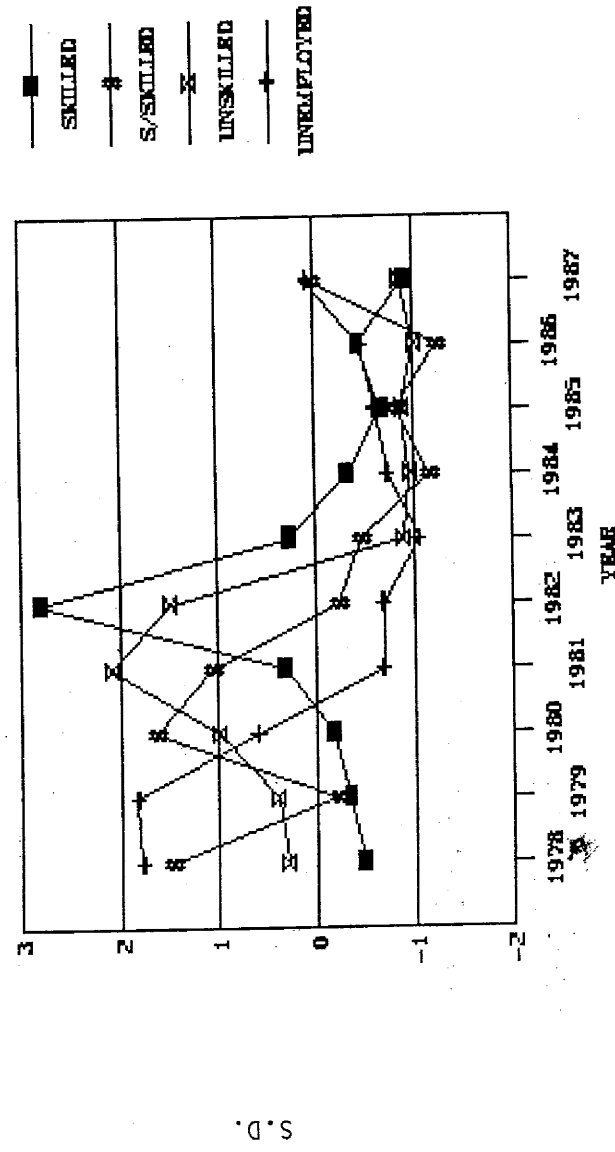
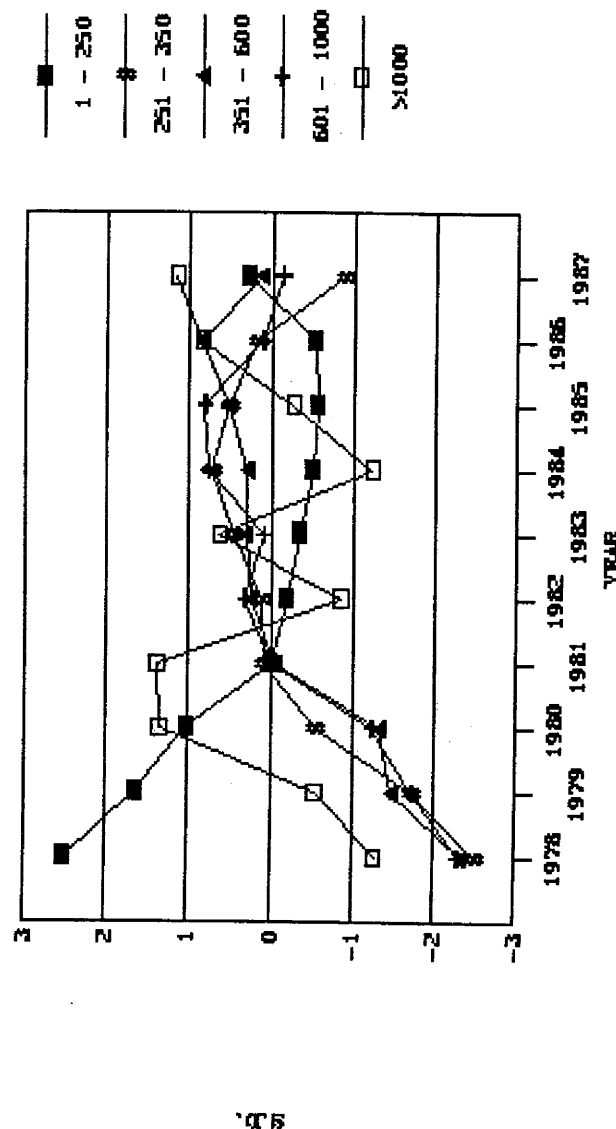


FIGURE 2.9 COMPARATIVE PROFILE FOR
YOUNG ABUSERS BY MONTHLY INCOME



g. Level of education

In the trend comparison for the young abusers who have attained tertiary education were not included due to the number of this group being negligible.

Generally, there are two different patterns exhibited by the profiles in Figure 2.10. For the young abusers who had no education or had attained lower and upper secondary education, the profiles indicate an increase in the prevalence of drug use among these categories of young abusers over 1978 to 1987. However, for those who had attained only primary education, the profile is inverse of those discussed above indicating a decrease in the prevalence of drug use over the ten years.

From 1978 to 1983, the profiles for the different categories of young abusers by level of education converged to their respective mean. After 1983, the profiles began to diverge. However, the deviations of the scores for the young abusers of different categories of level of education from the mean in 1978 is larger than those in 1987.

h. Criminality

Figure 2.11 presents the profiles for the young abusers by their criminal records. Generally, the shape of profiles are similar with major elevation from the mean in 1981 and major depressions in 1983 and 1985. These profiles indicate an increase in the proportion of young abusers who were ever arrested, convicted and imprisoned from 1979 to 1981 with a sharp decrease from 1981 to 1983.

The profiles for the young abusers who committed criminal offences like possession of drugs, pushing, stealing and robbing are presented in Figure 2.12.

Profiles for other criminal offences such as trafficking drugs, manufacturing drugs, possession of dangerous weapons, murder etc were not included due to the negligible number of young abusers involved in these criminal offences.

Generally, the shape of the profiles for those who committed crimes: pushing drugs, stealing and robbing are similar but irregular from 1978 to 1985. However, the profiles are dissimilar after 1985. The profile for those who possessed drugs is different from those discussed above. It indicates smaller proportion of young abusers identified committed the crime: possession of drugs each year from 1978 to 1986.

FIGURE 2.10 COMPARATIVE PROFILE FOR
YOUNG ABUSERS BY LEVEL OF EDUCATION

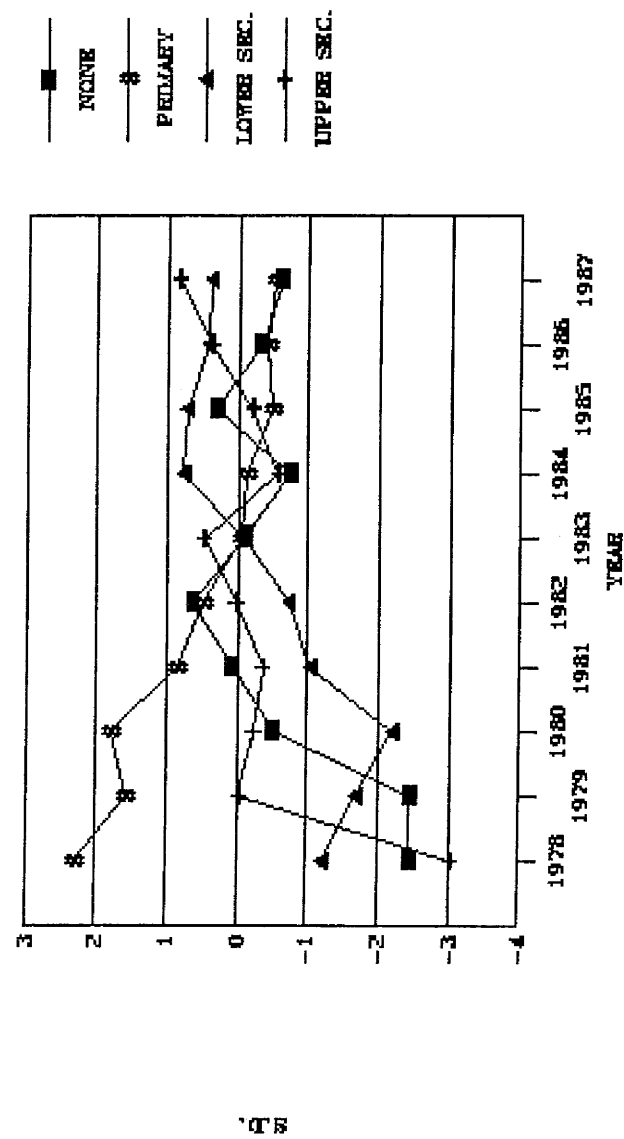


FIGURE 2.11 COMPARATIVE PROFILE FOR
YOUNG ABUSERS BY CRIMINAL RECORD

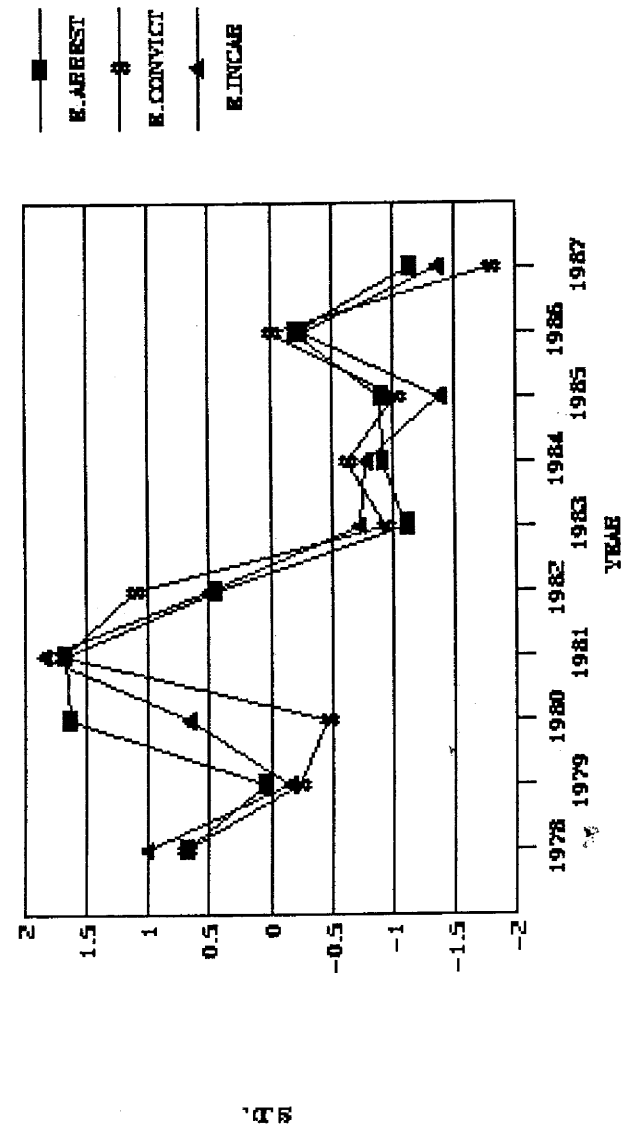
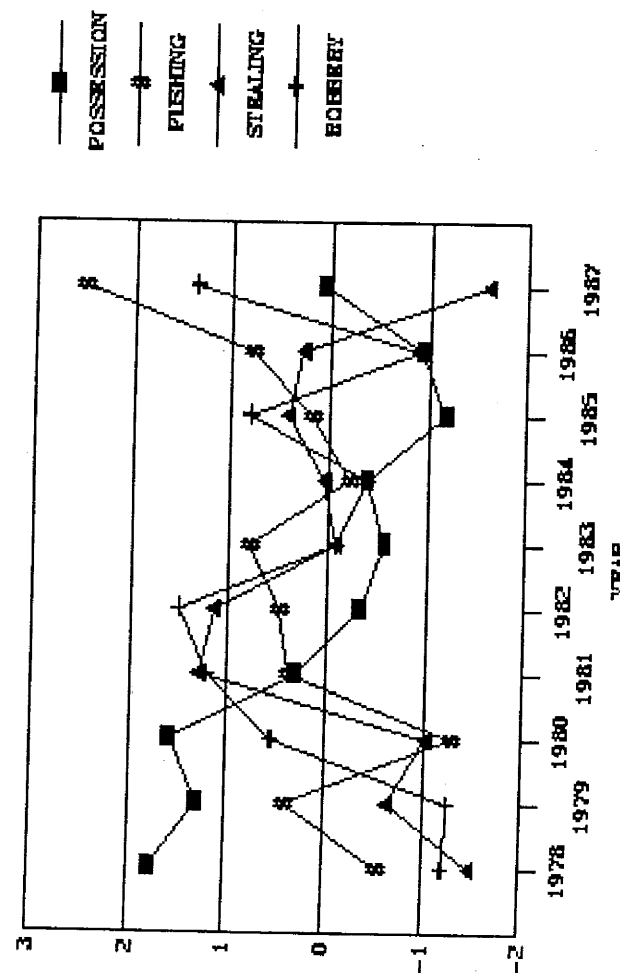


FIGURE 2.12 COMPARATIVE PROFILE FOR
YOUNG ABUSERS BY CRIMINAL OFFENCE



GENERAL PATTERN OF DRUG USE

a. Drugs Ever Used

Figure 2.13 shows the profiles for the young abusers by types of drugs ever abused. Generally, from 1978 to 1981 the profiles converged to their respective mean ± 0.5 S.D. After 1981, the profiles are irregular in shape. However, the profile for those who ever used tobacco is inverse of that for those who ever used morphine. For those who had ever used alcohol, after a major elevation from the mean in 1982, the profile declined steadily till 1987. For those who ever used cannabis, the profile remains stable between the range of 0.5 S.D. after 1981 with a major elevation in 1986. The profiles for those who ever used opium and heroin declined gradually from 1978 to 1987 indicating smaller proportions of young abusers who ever used opium and heroin each year over the ten years.

b. Drugs Used at the Time of Identification

Profiles for the young abusers by the type of drugs used at the time of identification are different from those by the type of drugs ever used. However, the convergence of the profiles to their respective means is common for Figure 2.13 and Figure 2.14. Based on Figure 2.14, generally the profile for those who used heroin at the time of identification is a declining profile indicating a decrease in the proportion of young abusers who used heroin at the time of identification. However, the inverse profile is observed for those who used morphine and cannabis indicating the opposite trend for them. The shape of the profiles for those who used tobacco and alcohol at the time of identification are similar. The profiles inclined from 1978 to 1984 and declined after 1984. If the major elevation in 1983 is ignored, the profile for those who used opium will be a declining profile indicating less young abuser using opium at the time of identification.

c. Age of Onset of Drug use

All the four profiles presented in Figure 2.15 are irregular and dissimilar to each other. Profiles for those who started drug use at the age of 10 - 14 and 15 - 19 could generally be classified as declining profiles from 1978 to 1984. However, major elevations are observed in 1986 for these two profiles. For those who started using drugs at the age of 20 to 21 years, the profile generally is an inclining profile from 1978 to 1987 with 2 major depression in 1980 and 1986. In 1986, the profiles discussed above converged to their respective means. For those who started at the age of 9 and below, the profile remains stable from 1978 to 1980 with elevations in 1981 and 1982. After 1982, the profile remains stable again till 1987 with an elevation in 1985.

FIGURE 2.13 COMPARATIVE PROFILE FOR
YOUNG ABUSERS BY DRUG EVER USED

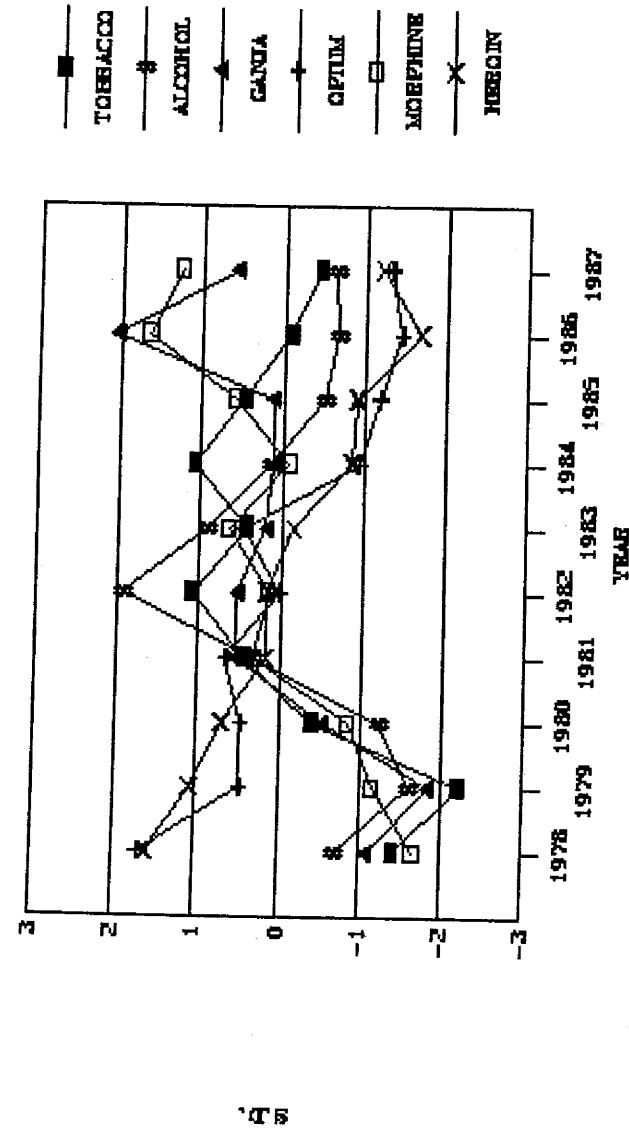


FIGURE 2.14 COMPARATIVE PROFILE FOR
YOUNG ABUSERS BY DRUG CURRENTLY USED

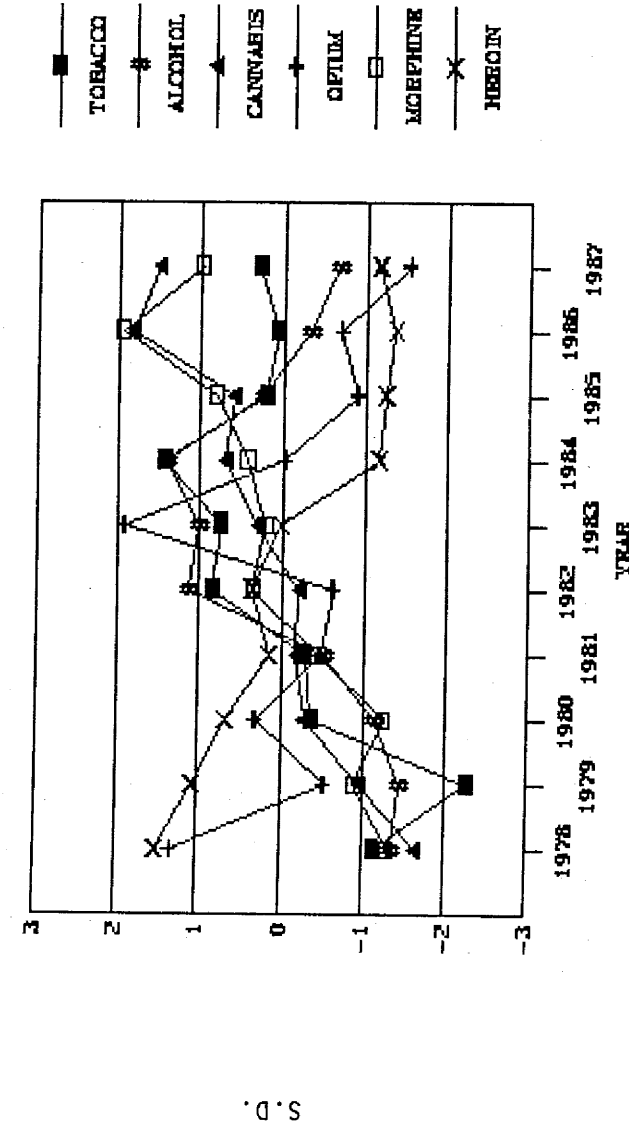
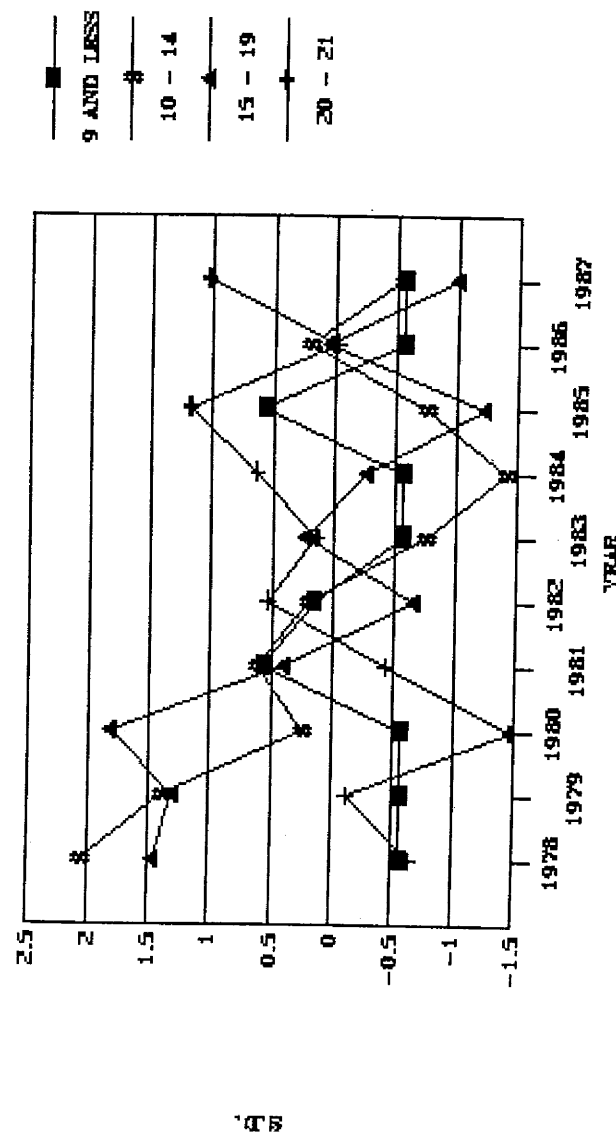


FIGURE 2.15 COMPARATIVE PROFILE FOR

YOUNG ABUSERS BY AGE OF ONSET



d. Reasons for drug use

Figure 2.16 reveals that the pattern of the profiles for the young abusers who used drug to get pleasure, due to curiosity, accidental and to get away from their emotional problems are similar from 1978 to 1985. The shape of these profiles indicates an increase in the proportions of young abusers using drugs because of the above reasons from 1978 to 1982 and a decrease in the proportions from 1982 to 1985. After 1985, except for those who use drugs out of curiosity, there are elevations in the rest of the profiles in 1986. For those who used drugs because of peer pressure, the profile is different from those discussed above. The profile declined from 1978 to 1981 then inclined from 1981 to 1982. After that, the profile declined gradually till 1985 and in 1986 there is a major elevation followed by a major depression in 1987.

e. Duration of Drug use

Based on the profiles presented in Figure 2.17, 3 different patterns of profiles are found. For those who used drugs for less than a year, the profile inclined from 1978 to 1982 and then remained stable for 5 years followed by a decline in 1987. Generally, the profile indicate a greater proportion of young abusers who used drugs for less than a year were identified over these 10 years. The profiles for those who used drugs for 1 to 2 years and 2 to 4 years were similar and inverse of the profile for those who used drugs for less than a year. So the opposite trend is observed for these young abusers. The profiles for those who used drugs for 4 to 6 years and more than 6 years are similar with one year time-lapse. For those who used drugs for a duration 4 to 6 years, there is a major elevation in the profile in 1980 (1981 for those with duration more than 6 years) followed by decline till 1984. After 1984, the profiles inclined till 1987.

f. Daily expenditure on drugs.

Figure 2.18 shows that there is a sharp drop from 1978 to 1980 in the profile for the young abusers who spent 1 to 5 ringgit on drugs daily followed by a gradual increase from 1980 to 1984. After 1984, the profile begins to decline till 1987. The profiles for those who spent 11 - 15 ringgit and more than 16 ringgit daily were similar but inverse of those who spent 1 - 5 ringgit daily. For those who spent 6 to 10 ringgit the profile is unevenly inclining, indicating larger proportion of them were identified each year during these 10 years.

FIGURE 2.16 COMPARATIVE PROFILE FOR
YOUNG ABUSERS BY REASON FOR DRUG USE

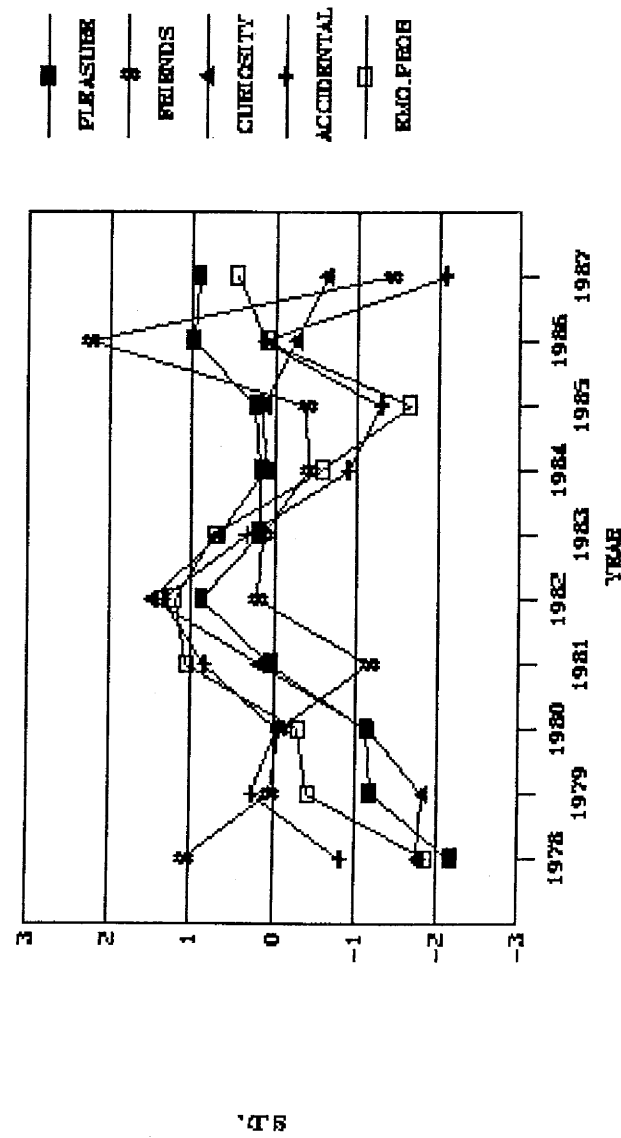


FIGURE 2.17 COMPARATIVE PROFILE FOR
YOUNG ABUSERS BY DURATION OF DRUG USE

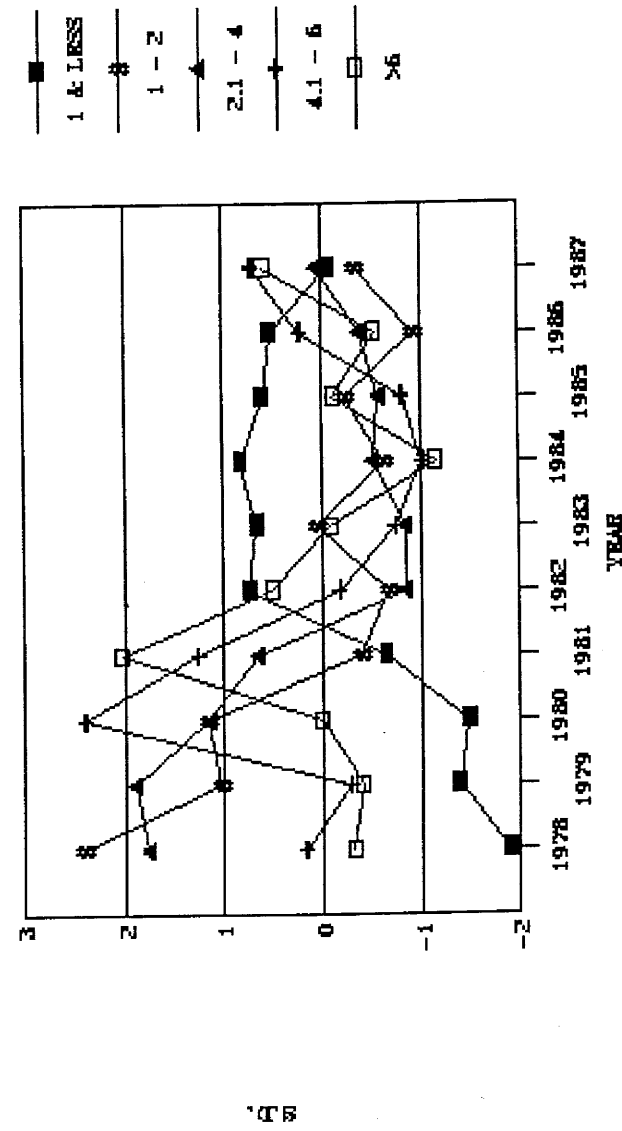
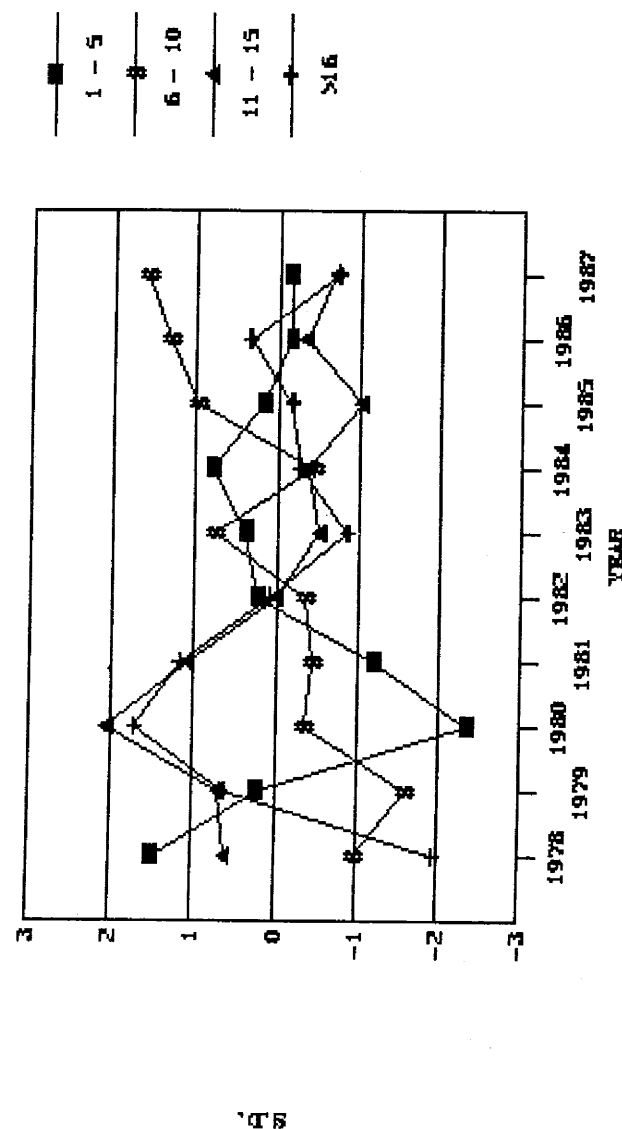


FIGURE 2.18 COMPARATIVE PROFILE FOR

YOUNG ABUSERS DAILY EXPENDITURE ON DRUG



g. Sources of drugs

Figure 2.19 presents the profiles for the young abusers by the sources of drugs. Generally, there are two patterns of profile presented here. The profiles, for those who obtained their drugs from coffee-shops, shops other than coffee-shops, friends and pusher (non-addict), are similar. These profiles inclined from 1978 to their peak in 1982 followed by a decline till 1985. For those who obtained their drugs from the pushers (addict), the profile is inverse of those discussed above.

h. Reasons for Discontinuance of Drug Use

The profile in Figure 2.20 are irregular and dissimilar to each other. The profile for the reason for discontinuance "Pressure from the Law Enforcement" is inverse of that for "For the Family". "Pressure from the law enforcement" seem to be the more common reason for discontinuance of drug use in 1982, 1983 and 1984 rather than "For the family". The pattern of the profile for the reason "family request" is similar to that for the "For the Family". For those who stop using drugs because drugs are getting more expensive, the profile is a declining one from 1979 to 1987 except a high elevation in 1986. Profile for the reason "drug will shorten life" is a declining profile from 1978 to 1986.

FIGURE 2.19 COMPARATIVE PROFILE FOR
YOUNG ABUSERS BY SOURCE OF DRUG

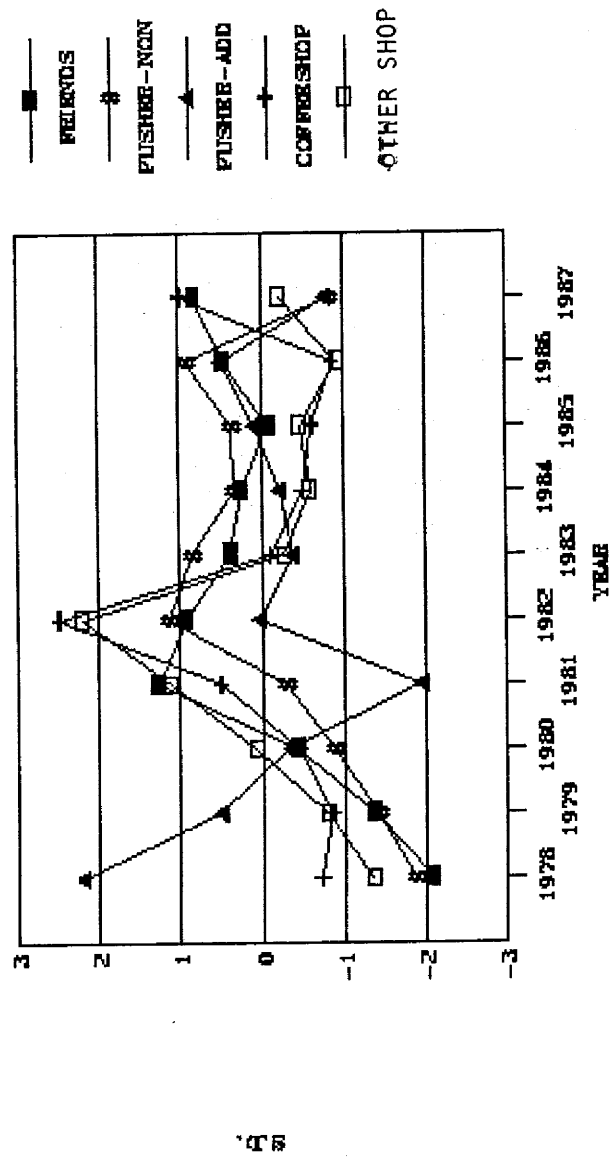
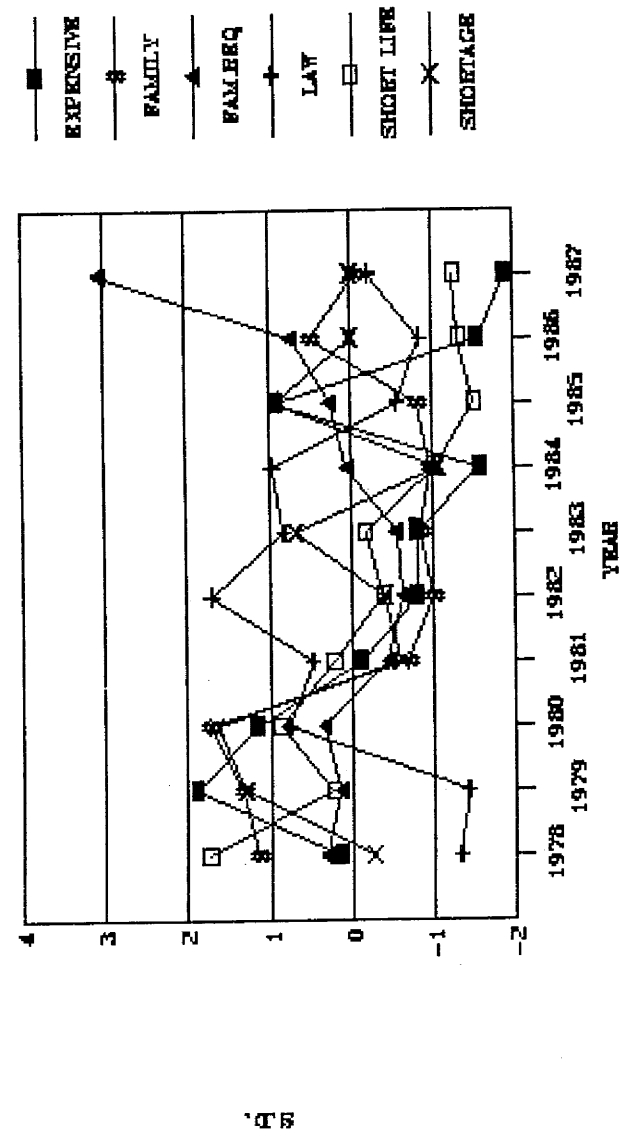


FIGURE 2.20 COMPARATIVE PROFILE FOR
YOUNG ABUSERS BY REASON FOR STOPPING



5.0 DISCUSSION

The problem of drug abuse among the young people in Malaysia has been accepted as the most serious drug addiction problem since 56.979% of the drug addicts identified by the NDAMS are 24 years old and below (Foong and Navaratnam, 1987a and 1987b). In this study, the scope of the study is limited to only the addicts identified by the NDAMS who were 21 years old and below at the time of identification. Majority of these young addicts are not chronic or heavy users, hence they are referred as young abusers instead of young addicts.

A total of 13185 young abusers were identified by NDAMS over the years 1978 to 1987. In the seventies when the enforcement activities were less extensive, an inflate ratio of 1:8 was used to estimate the number of young abusers in the country including those who were not identified by the NDAMS. However in late eighties, the enforcement activities were much more extensive than in the seventies and hence the inflate ratio for estimation drops to 1:3. To estimate the total number of young abusers over the ten years: 1978 to 1987, an average inflate ratio of 1:5 is used and this give an estimate of 65,925. 65,925 young abusers over the period of ten years will give an estimate of 6592 young abusers per year. To express the severity of the problem in another way, 6592 young abusers per year means a young abuser was 'born' in every 79.73 minutes (or 1 hour and 20 minutes) in Malaysia.

When the problem of drug use among the young abusers is compared to that of the older addicts based on the incidence identified by NDAMS, the problem for the young abusers appeared to be much more severe than that of the older addicts. However, when the comparison is made with consideration of the general profile of the population by age, the proportion of young people (24 years old and below) involved in drug use (0.696%) is smaller than that of the older population more than 24 years old (1.015%) indicating drug use problem among the older population (more than 24 years old) is more severe. Clearly the outcome of the assessment on the severity of the problem of young people in drug use relative to the older population will depend on the way in which the problem is estimated.

Generally, the problem of young people involved in drug use in Malaysia is a major social problem since other drug related problems like crime, health problem, unemployment, economic turbulence etc are originated from drug addiction problem. Looking at the trend on the percentage of young abusers identified over the years 1978 to 1987, the sharp increase in the trend before the peak in 1982 may not indicate increase in the severity of the problem of young people involved in drug use. Most probably, it is simply the increase in the identification of young abusers due to the increasing enforcement activities over years. However, the sharp decline

in the trend after 1982 may be valid and it indicates an actual decrease in the drug use involvement of the young abusers, the drug enforcement activities are maintained after 1982 and no major policy amendment made on the identification and reporting of the young abusers by NDAMS.

For a multi-ethnic country like Malaysia, the study was focussed on the influence of cultural background of the young people on their drug use behaviour. The raw data provided by NDAMS on the prevalence of drug use of different ethnicity indicate that Malays are most vulnerable to drug use and Indians the least vulnerable in term of figures. However, taking into consideration the breakdown of the general population of Malaysia by ethnicity and age in the estimation of drug use problem among the young people by ethnicity, Indian youths are found to be most vulnerable to drug use among the three major races in Malaysia, followed by the Chinese and Malay youths being the least vulnerable. A picture which is inverse of the earlier one is observed here.

The observation that a larger proportion of the Malay young abusers attained higher level of education indicate a need to investigate further on the psycho-social factors that contributed to this phenomenon.

The prevalence of smoking among the young abusers of the three major ethnicities are quite the same. However, a larger proportion of the Chinese used heroin while a larger proportion of Malays and Indians used cannabis. For the Chinese and Indians, these pattern may be due to the drug abuse history of the Chinese and Indians.

The study on the student young abusers based on the records collected by NDAMS, yield the results which support the earlier findings concerning the school drug-using students. The study on the trend on percentage of student young abusers reveals a decreasing trend over 1978 to 1987 except the years 1981, 1982 and 1983. Similar trend is observed based on the earlier studies by the Centre for Drug Research. Majority of the student young abusers were Malays. Further investigation on the social factor contributing to this phenomenon should be executed. As reported in the earlier studies, heroin was not found as the most common drug of abuse among the students. However in this study, heroin was found as the most common drug of abuse other than tobacco which is a socially accepted drug in Malaysia. Higher sensitivity of the NDAMS on opiates and cannabis might have identified only the young abusers involved in the dangerous drugs excluding tobacco and alcohol. Late adolescence (15 to 19 years old) was found to be the most vulnerable time period to drug abuse for the student young abusers. Similar trend were also reported in the earlier studies by the Centre.

A comparative study on the student and non-student abusers reveals that the latter were more involved in criminal activities than the former group. A larger proportion of non-student abusers were found using heroin while larger proportion of student abusers were found using cannabis indicating there is a major difference in the pattern of drug use between these two groups. Most probably the non-student abusers have peers who used more chronic drugs relative to those for the student abusers. The above explanation is supported by the finding on the sources of drug where more non-student abusers obtained their drugs from pushers who are addicts while more student abusers obtained from friends. Among the non-student young abusers identified by the NDAMS, majority of them were found to be the 'drop-out' of primary six or Lower Certificate of Education. The fact that the majority of the young abusers identified were non-student, preventive measures that is targeted at the drop-outs or measures that can delay the drop-out incidence at primary six or Lower Certificate of Education to after Malaysia Certificate of Education might be the type of effective drug prevention programmes for the young people.

In the trend study, the decreasing trend observed for Federal Territory reveals that the involvement of young people in drug use has decreased over the ten years. This might have been due to the effect of frequent launching of various prevention programmes at all levels which are centralised in Federal Territory. However, for the state of Pahang and Perak, there is an increase in the percentage of young abusers over the years. To have an effective control on drug use for all states, the launching of anti-drug use campaigns and other prevention programmes should be at the national level where every state plays an active role in combating drug use. If the prevention programmes are implemented by the local governments at state level, the difference in the efforts of implementing such programmes between states will result in the 'transfer' of drug use problem from states with effective control on drug use to those with less effective control.

Further investigation should be carried out on the Malay young abusers to find out the factors contributing to their increasing trend in drug use since 1980. Over the ten years, the drug use problem remains as the problem for the male and there is a slight increase in the trend on percentage of male young abusers over the years. The decreasing trends on percentage of unemployed and unskilled young abusers indicates decrease in the involvement of these young abusers in drug use. On the other hand, this might mean that the drug use problem has spread from these young abusers to those of other occupations. However, other than the students, young abusers of other occupations also have decreasing trend on their percentage over the ten years. There are increasing trends on the percentage of the young abusers who earned between 251 ringgits and 1000 ringgits monthly and a decreasing trend on those who earned 1 to 250 ringgits monthly.

This phenomenon indicates the spreading of drug use problem from the lower income group to the higher income group. Similarly when the trend on level of education attained is referred, there is an increasing trend on the percentage of those who have attained secondary education and a decreasing trend for those who have attained primary education indicating the spreading of drug use problem from the primary educated youths to the secondary educated ones.

The national anti-drug use campaign in the early eighties have influenced the ecology of drug use among the young abusers, and it is observed that in most of the trends for the socio-demographic characteristics particularly the trends on the percentage of young abusers by criminal records. The elevation in the trends for the young abusers ever arrested, ever convicted and ever incarcerated in 1981 indicates a larger proportion of the young abusers were reported in the criminal records due to the extensive enforcement activities.

For the young abusers, there is an indication that the pattern of drug use have changed over these ten years. Cannabis has become a more common drug of abuse while the abuse of heroin has declined. This change might have been due to the strict control on heroin that has made heroin less available and more expensive. While most of the studies reported the trend of decrease in the age of onset of drug use, the current survey based on NDAMS reported an inverse trend to the one above. A decreasing trend is observed for those who started drug use between the age of 10 and 19 while an increasing trend is observed for those starting at the age of 20 or 21 years, indicating the age of onset of drug use has increased over the years.

The trend study on the reasons for drug use and the duration of drug use for the young abusers over the ten years has given some insight on the impact of the national anti-drug use campaign in the early eighties. There is a sharp increasing trend on the percentage of young abusers using drugs out of curiosity and for pleasure, as well as those using drug for less than a year from 1978 to 1982. The above observation might indicate that although the anti-drug use campaign has generally achieved certain level of success, the campaign has provoked curiosity among the young people to try drugs and has caused the increase in the number of experimenters who used drugs for less than a year. Therefore, the implementation of drug prevention programmes should create awareness but not provoke curiosity to try. The positive impact of the national anti-drug use campaign could be observed from the increasing trend on percentage of young abusers who stopped using drugs due to the pressure from laws enforcement from 1978 to 1982. However, the trend declined after 1982.

6.0 CONCLUSION

Based on the 13185 records collected by the National Drug Abuse Monitoring System (NDAMS) over the years 1978 to 1987, the pattern of drug use and the socio-demographic background for the young abusers of 21 years old and below are described. There are some influences on the pattern of drug use and the socio-demographic background of the young abusers by ethnicity, academic status and age. The significant influences are described in the section 4.0 of the report.

Based on 594 records of the student young abusers, the pattern of drug use and the socio-demographic background of these young abusers are established. When compared to the earlier studies conducted by the Centre for Drug Research (Navaratnam and Spencer, 1976; Navaratnam, Spencer and Lee, 1978; Choo et al., 1986), there are some similarities and differences in the pattern of drug use and the socio-demographic background.

Most of the socio-demographic characteristics and the pattern of drug use over the years 1978 to 1987 have trends with regular pattern. However the patterns for some of the trends are irregular.

7.0 RECOMMENDATION

In the process of planning drug abuse prevention activities, the general overall need assessment in the first stage of planning prevention activities, might not be sufficient for addicts with different socio-demographic background and pattern of drug use. The study has clearly shown that there are some differences in the socio-demographic characteristics and pattern of drug use between the addicts of different age groups, ethnicity and academic status whether they are students or non-students. Specific need assessments for different target groups should be executed for the purpose of stating the needs for the different groups of addicts for programme planning.

In preventing the young people from being involved in drug use, it is vital to investigate in more detail, the factors contributing to drug use for the young abusers. The indepth study on the drop-out students after Lower Certificate of Education could provide insight on the involvement of young people in drug use.

Based on the results of the above suggested study, effective prevention measures targeted at the drop-outs could be planned and implemented. This measure will be one of the most effective prevention approach in preventing young people from involving in drug abuse.

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